

Prime Minister's decision against election angers opponents

James Callaghan, the Prime Minister, yesterday ruled an early general election when he told the nation on television and radio of the Government's intention to carry out a fifth and final session of the present parliament. Margaret Thatcher, the Conservative leader, said the decision was against the national interest. Mr David Steel,

who described the announcement as "truly astounding", said the sooner the Government went to the country the better, and pledged that the Liberals would "act accordingly". The Scottish National Party rejected any idea of a formal pact to keep Labour in office, but an unspoken arrangement has not been ruled out.

SNP may offer support, but rules out pact

Mr Callaghan's decision to call a general election in November, after a year and a half of the present parliament, has been welcomed by many of his opponents. Mr David Steel, leader of the Liberal Party, said the decision was "a relief" and that the Government had "lost its nerve". He said the election would be held in a "fair and free" atmosphere, and that the Government would be "held to account".

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Sir Harold denies any knowledge of oil details

Sir Harold Wilson again asserted last night that he had no knowledge of the details of the oil companies' supply of oil to Rhodesia in defiance of the sanctions order.

CBI calls for £5,250m tax cuts in 8-point strategy for economy

The Confederation of British Industry yesterday put forward an eight-point strategy, including plans for tax cuts worth £5,250m, by which it claims Britain could achieve growth of at least 3½ per cent and create one million jobs over the next three years.

Missile brought down Rhodesian airliner

The Air Rhodesia airliner disaster last Sunday was caused by a heat-seeking missile, Mr William Irvine, the Co-Minister of Transport and Power, announced in the Rhodesian Parliament today. He said the missile hit the airliner's inner starboard engine.

Sex and cash inquiry at Liberal club

Allegations concerning homosexuality and financial matters at the National Liberal Club are being investigated by detectives who have spoken to a former club official.



Ministerial amusement in Downing Street after the Cabinet meeting election decision yesterday: from left, Eric Varley, Shirley Williams (part obscured), David Bunnell, Elwyn Jones, Bruce Millan, Edmund Dell, Peter Shore and Stanley Orme.

SNP rejects formal pact with Government

The Scottish National Party last night rejected any question of pacts with the Government in the next session of Parliament and expressed disappointment that there was not to be an autumn election.

Mr Callaghan must realize he is a Prime Minister and not a practical joker. He has more time to expose him and the damage his Government has done to Scotland in the last four years, a party spokesman said.

Second round of talks at silent Camp David

Patrick Brogan, Washington, Sept 7. The Middle East summit continues at Camp David, in the Maryland hills, and the secrecy which the meetings are surrounded remains impenetrable.

Hint of deal on dissident

Mr Francis Jay Crawford, an American businessman, was given a five-year suspended labour camp sentence after being found guilty in Moscow of currency black market offences. He maintained his innocence, but said he would leave the Soviet Union as soon as possible.

Saffron gambit

Two saffron-robed members of the Ananda Marga sect, on bail after their conviction on charges of attempted murder, saw their appeal against the conviction dismissed in the High Court yesterday.

Saturday review

An extract from J. G. Farrell's *Singapore Grip* is tomorrow's main feature in the Saturday Review. There is also an interview with the author, the novelist Carol Moorehead. Alison Ross celebrates the return of the Red Lantern fungus in an intriguing article.

Britain sued over wine

The EEC Commission is to take Britain to court, Italy and Denmark to the European Court. It accuses the four nations of using taxation to discriminate against imported spirits and wine, and says Britain has raised the tax on wine to five times that on beer. The court's decision is not expected for several months.

Pan Am routes shorn

Pan Am, which has agreed merger terms with National Airlines, is to suspend all operations to the Soviet Union and eastern Europe because it is operating at a disadvantage against state-owned airlines. Services to other European centres are to be cut, pending reorganization of operations.

Concorde for show

A British Airways Concorde will open the flying display at the Farnborough air show on Sunday, after complaints about its absence. It will make two low passes, and is expected to attract 100,000 spectators.



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WEST EUROPE

Britain among four EEC nations to be taken to court over high taxes on wine and spirits

From Peter Norman, Brussels, Sept. 7

The European Commission has begun proceedings against Britain before the European Court of Justice for taxing wine at five times the rate levied on beer.

The Commission is invoking Article 95 of the Treaty of Rome which forbids the imposition of taxes on the products of other member states at a higher rate than those levied on similar or competing domestic products.

The Commission maintains that wine and beer are competitive alcoholic drinks and are both produced by fermentation.

At the root of the problem is Britain's modest consumption of wine. Although the British argue that wine consumption

has increased at an annual rate of 17 per cent over the past decade, the Commission points out that Britain's wine imports are lower than those of the three Benelux countries.

Britain, the Commission argues, imposes a higher level of tax on wine than any of the Community states and since joining the Nine has reinforced the protection accorded to beer.

In 1972 wine was taxed at four times the rate levied on beer. By January 1974, the ratio of taxation had actually fallen to about 1.3 but the tax on wine has since risen to about five times that levied on beer.

The Commission's initiative is not so much intended to bring relief to the British wine drinker as to help France and Italy. Britain's distillers can take

heart, however, because France, Italy and Denmark are also being taken to court for providing their own producers of spirit with the same sort of protection that Britain is accused of giving to its brewers.

The Commission claims that in the case of France the tax levied on domestically produced grape-based spirits such as cognac is at least 30 per cent lower than that imposed on imported cereal-based products like Scotch.

In Italy, imported cereal-based spirits are taxed at four to six times the rate levied on grape-based products such as brandy and grappa.

Denmark is accused of giving similar preferential treatment to its own producers of aquavit and other white spirits.

Search for accomplices of dead terrorist

From Patricia Clough, Bonn, Sept. 7

West German police today searched fruitlessly for two accomplices of Willy Peter Stoll, the terrorist shot dead by police in a Düsseldorf restaurant last night.

Borders and airports were being closely watched for Christian Klar and Adelheid Schulz, who was earlier reported to have been arrested. They are known to have made several helicopter flights with Stoll over south-west Germany last month.

All three are believed to have taken part in the murders of Dr Siegfried Buhack, the federal prosecutor, Dr Jürgen Pomm, head of the Dresden Bank, and Dr Hans-Martin Schleyer, the industrialist's president.

Stoll, aged 28, was shot dead when he tried to draw a pistol on a policeman who asked for his papers.

The police said today that a tip-off from a customer led them to a cheap Chinese restaurant in Düsseldorf's red-light district. While colleagues surrounded the place, two plain clothes men went inside and saw a young man sitting alone, calmly reading a book.

Realising he had been recognized, Stoll apparently attempted to pull a pistol from a holster under his jacket. Immediately the policeman at the table fired, and since the pistol was not dropped, fired again and again. Stoll fell to the floor and died shortly afterwards.

Maastricht: A Dutch court ruled today that Knut Folkerts, a suspected terrorist, can be extradited to West Germany to face a charge of involvement in an attempt to bomb a justice department building at Karlsruhe last year. —AP.

Secretary 'betrayed Bonn secrets for love'

From Our Own Correspondent, Bonn, Sept. 7

A secretary in the West German Chancellery said a Düsseldorf court today that she betrayed all the Government secrets she knew in order to marry the East German agent she loved.

Frau Dagmar Christa Kahlisch-Scheffler, aged 31, was one of four people to go on trial today for spying for East Germany. Accused with her in Düsseldorf were a married couple, Peter Gudrun Goslar, while in Hamburg a police inspector denied being an East German agent.

Frau Kahlisch-Scheffler worked in the Chancellery's Office for Relations with other West European countries and European Union.

Frau Kahlisch-Scheffler told the court that after a broken marriage, she fell in love with Herbert Schröter of East Berlin during a holiday in 1975 with her small daughter in Bulgaria. Later, in exchange for promises that she could keep seeing Herr Schröter and eventually marry him, she signed a pledge to work for the East German secret service. She married him in East Germany in 1976, but was able to see him only at intervals of about three weeks.

In Hamburg, Rolf Grunert, an inspector in the Hamburg police, denied passing the East German documents and information on internal security in West Germany.

New Lisbon leader unveils tough austerity plans

From Our Correspondent, Lisbon, Sept. 7

Senhor Alfredo Nobre de Costa, head of Portugal's new non-party Government, presented an austere programme of work and action to Parliament for approval today.

The Prime Minister, who was sworn in with his 29-member Cabinet by President Eanes, this morning said Portugal's economy was approaching breakdown in some sectors. Even harsher austerity mea-

asures might be needed if production did not improve.

Its acceptance will depend on the attitude of Dr. Mario Soares's Socialist Party, which will meet this weekend to decide its response. It is likely that the Socialist Party will mean that the Prime Minister's Cabinet would act only as a caretaker administration until early elections.

Today his Government came under heavy attack from spokesmen for most of the leading parties.

Lost whale spurns aid of psychologist

Chebourg, Sept. 7.—A whale that lost its sense of direction and entered Chebourg's military harbour paralysed port activities for the third day today despite the efforts of a whale psychologist to coax it out to sea, a French Navy spokesman said.

The group whale—a black variety of toothed whale related to dolphins—weighs over 1,020 lb and measures 13 ft. It is normally a resident of the cold waters of the north Atlantic. It entered the port on Tuesday and has refused to go near the exit ever since.

All shipping was immediately suspended for fear that the whale would be hurt by a propeller.

According to the spokesman, the psychologist said the whale had to be frightened into getting back its sense of direction and the Navy promptly fired blank training grenades in an attempt to achieve this.

The whale, whose slick black back can occasionally be seen, was apparently annoyed by explosions and the Navy is now contemplating the killing of the animal unless it leaves soon. Killing it is considered a better alternative than letting it die of starvation.

Earlier this summer, another whale ventured into the Balde and settled there for months, living off herring. Eventually the Swedish Board of Conservation lost track of its movements. —UPI.



Baron Empain: back to control his industrial group.

Baron upset by attitude of the police

From Ian Murray, Paris, Sept. 7

Baron Edouard-Jean Empain invited the press to his offices in Paris this morning to talk about his kidnapping and how it had changed his life.

The baron, who spent 63 days hooded and chained to a bed after he was seized in January, showed he had recovered his morale despite some bitter discoveries when he was released.

The first thing he wanted to make clear was that he was once again firmly in control of the giant industrial group of which he is the principal shareholder.

Schneider cannot be managed without him, he said confidently.

The baron spoke warmly about his new life. "I had called a press conference, he would have had a stage fright. Now I am relaxed. I know that what is important is not what the people think when they

see you on television or hear you on the radio. What is important is the ability to get up in the morning without being chained, to be able to take a shower and have breakfast and to take your time. I am sure that if an actor relived my experience he would become a much better person. The important things are the material ones in life."

He described how his kidnappers had cut off the end of his finger and how he had felt a great deal of sympathy for his kidnappers. They are imprisoned now, he said, and I know that captivity is unbearable. I do not hold anything against my kidnappers any more, and I would go so far as to excuse them.

The baron had some bitter memories after his release. "I needed to build up my strength again and I deplored the behaviour of part of my entourage after my liberation," he said. "As far as the police are concerned, I owe them my life but I regret their attitude. When they searched for clues, I deplored the fact that they did not keep what they had discovered to themselves, but instead showed the discoveries to some of my relations."

Britons held in Italy after bride's death fall

Misano Adriatico, Sept. 7.—Seven young Britons are being held by Italian police after a fight in a rented flat ended with a honeymoon bride falling naked to her death from a ninth-floor balcony.

Mrs Sylvia Palmer, aged 22, from Rathcoole, near Belfast, was impaled on railings below the flat. Police said they were investigating whether she slipped or was pushed.

Mrs Palmer and her husband of nine days were sharing the ninth-floor flat in an apartment block with another Northern Ireland couple. Four men from Newcastle had a flat in the same block and an argument broke out between the two couples in the small hours yesterday.

The ninth-floor flat was devastated during the argument, police added, saying they found a knife with a bloodstain on it.

The six men involved in the argument were being held in Rimini jail and a woman was taken to Forlì jail. The case is now in the hands of magistrates who will decide whether charges are to be brought. —Renew.

Party expels M Fabre

Paris, Sept. 7.—M Robert Fabre, former leader of the small opposition Left Radical movement, was expelled from the party today because he accepted an invitation from President Giscard d'Estaing to join a study of unemployment.

The party said its executive had unanimously asked M

Fabre to turn down the invitation. By his acceptance he had placed himself outside the party.

M Fabre was leader of the Radicals, the smallest component of the Union of the Left, led by the Socialist and Communist, when it was defeated in the elections last March. —AP.

OVERSEAS

West Bank's Arabs fear Israeli plan for region

From Michael Knipe, Jerusalem, Sept. 7

Arabs living on the occupied West Bank believe that the Camp David summit will end in failure and that Israel intends to impose its plan on the area regardless of the wishes of the people.

Mr. Karim Khalaf, the mayor of Ramallah, maintained that within a few months there will be moves to form an autonomous Arab administration. To this end, he said in an interview with *The Times*, the Israeli authorities are attempting to replace their own officials holding senior administrative positions by West Bank Arabs.

But a spokesman for the military government said he knew of no such moves and verified that no senior Israeli officials in the administration had been replaced.

The Israeli military authorities have recently been attempting to trace Arab political activists to the Palestinian Liberation Organization for political leadership, possibly with traditional leaders who may be more prepared to collaborate.

Reflecting the general view on the West Bank, Mr. Khalaf dismissed the Camp David summit as a complete waste of time. President Sadat's efforts were doomed to failure, he said.

The Israelis would not evacuate an inch of territory unless they were forced to do so, he said. The United States had no sincere intention of forcing them.

Mr. Moshe Dayan, the Israeli Foreign Minister, recently received a number of West Bank residents in an apparent effort to gauge their attitudes to the autonomy proposals.

The plan, as it stands, proposes the withdrawal of the Israeli military government and the election of an 11-member administrative council which would be based in Bethlehem and would handle all the area's affairs except security and public order which would remain the responsibility of Israel.



Mr Sadat and Mr Begin meet, with Mr Carter as host, outside the American President's lodge at Camp David.

Syria prepares to make peace with Mr Sadat

From Robert Fisk, Damascus, Sept. 7

Syria is preparing the way for President Sadat to return to the ranks of his Arab neighbours if the Middle East peace talks at Camp David fail to produce any tangible result.

The Egyptian leader would be expected under these circumstances to break off every diplomatic link with the Israelis and to promise that never again would he negotiate unilaterally with them.

Since Mr Sadat has been revealed as a traitor to Damascus ever since his visit to Jerusalem last year, such an accommodation by Syria may appear surprising. But, as one Government official put it here, "if Sadat cuts all his contacts with the enemy then we cannot ignore Arab solidarity."

The explanation, of course, is fairly simple. Syria believes Egypt cannot on its own represent the whole Arab world and this assumption coupled with Syria's long-standing contempt for Egypt's habit of taking unexpected unilateral initiatives,

has been the base for the constant and sometimes personal attacks made on Mr Sadat by Syrian officials and by the Damascus press.

But the equation works in reverse. Without Egypt, the states which have most bitterly criticized the Sadat initiative would not be persuaded that their voice truly represents Arab aspirations.

Whatever the results of Camp David, President Sadat cannot be expected to humble himself before the four nations who have most closely organized opposition to his initiative—Syria, Algeria, South Yemen and Libya. Indeed, the last thing Mr Sadat will do if the summit produces further deadlock is to prostrate himself before the emotionalism of Colonel Gaddafi of Libya.

Nonetheless, there are ways of cementing a new alliance between Syria and Egypt without insisting that Mr Sadat lose face. A strong attack on the Israeli Government by the Egyptian leader together with the cessation of all and every contact that exists between

Cairo and Jerusalem, could start this process.

Syrian officials, for instance, viewed with satisfaction Mr Sadat's decision to withdraw the Egyptian delegation from Jerusalem earlier this year after Mr Menachem Begin, the Israeli Prime Minister, spoke harshly of the Egyptian Foreign Minister at a formal dinner.

The fact that the Egyptians and Israelis sat down again within months, confused this issue and Syria is now watching Mr Sadat's every move with a public decision with angry suspicion.

Despite the importance which Syria attaches to the Geneva peace conference, it is believed that President Assad now favours the United Nations as the forum in which the future of the Middle East should be debated. A shrewd suspicion of Soviet intentions in the area and a conviction that the Israelis are losing their verbal battles in the United Nations General Assembly has persuaded the Syrians to talk more and more of the United Nations.

They also regard Dr. Kurt Waldheim, the United Nations Secretary-General, as a foe of Syria.

All this, however, is a long way off and for the time Syria's public face remains inflexible as ever towards Mr Sadat. "After all he has done up to now," said a Syrian official, "can Sadat cut every contact with the Israelis in a day and a night? He must despatch everything he has done."

Syria's position among Arab states opposing Mr Sadat also has several weak points. For a start, Iraq will not take part in the so-called Damascus "readiness" conference later this month in which Algeria, Syria, South Yemen and Libya, as well as the Palestinian, will virtually condemn President Sadat.

Secondly, opposition to President Assad within Syria continues. "Thirdly," and most serious, Syria's long-standing duties in Lebanon have turned into a series of regular battles between right-wing militias and Syrian troops.

Nkomo men dig in for air strikes

From Lawrence Pinak, Lusaka, Sept. 7

Mr Joshua Nkomo's Rhodesian nationalist guerrillas today dug in for a Rhodesian air strike against their Zambian positions expected in retaliation for an attack on an Air Rhodesia airliner at the weekend.

Nationalist sources said intelligence reports from inside Rhodesia indicated that the Salisbury regime would order a strike not against military bases along the border, but on refugee camps in the vicinity of the capital.

There are several camps housing women and children scattered around Lusaka, but the area also contains training and transit camps for guerrillas.

Mr Nkomo, the leader of the Zimbabwe African People's Organization (Zapu), said here that any assault against camps near Lusaka would be an attack on Zambia itself.

The authorities here would not comment but President Kaunda is to hold an early morning news conference tomorrow.

Mr Nkomo and his top aides were clearly worried today, and showed no signs of the high spirits they were in earlier this week, when they were convinced that they were nearing the end of their long campaign to end minority rule.

The Zapu leader predicted a new escalation of the war coupled with a crackdown on his organization's activities inside Rhodesia.

Both Mr Nkomo's Zapu and Mr Robert Mugabe's Zanu (Zimbabwe African National Union) have operated freely inside Rhodesia since the May 31 internal settlement, although the Mugabe branch operates under the name "People's Movement."

Zapu sources expected their internal wing to be outlawed once again, and its representatives, including First Vice-President Joshua Chinemano, to be jailed.

The pessimism by the nationalists comes as a direct result of Sunday's crash of the Air Rhodesia Viscount filled with holidaymakers, and the subsequent slaughter of 10 survivors on the ground. Mr Nkomo claimed his men were responsible for downing the airliner but denied that they killed the survivors.

Whatever the truth, it has hardened white attitudes towards Mr Nkomo and made it almost impossible for Mr Ian Smith to continue negotiations to bring him into a peaceful settlement.

Diplomats here were taking the threat of a Rhodesian raid seriously, but believed the Rhodesians would strike at military camps near the border, as in the past.

Salisbury has staged at least three guerrilla offensives in the Gwembu valley of Zambia, killing at least 1500 guerrillas. Troops have over ventured deeper than about 20 miles into Zambian territory.

Mr Nkomo claims that the Rhodesians will strike at the refugee camps this time because they were "bruised" in past raids on military staging areas.

Kaunda rival will be barred from Zambian poll by constitutional changes

From Our Correspondent, Lusaka, Sept. 7

Zambia's ruling United National Independence Party (Unip) will this weekend pass amendments to its constitution which will make it impossible for Mr Simon Kapwepwe or any other presidential candidate to challenge President Kaunda against the wishes of the party hierarchy.

The changes in the election rules, which will be rubber-stamped at the Unip general conference, will result in the Zambian President being chosen by 600 people instead of 6,000, as is the case now.

Under the amendments, the party's national council will name the candidate, who will then run unopposed in the general election last year after being formally approved by the conference. Dr Kaunda has already been named sole candidate by the council.

The amendments also stipulate that all aspirants must have been members of Unip for five years, must not have a criminal record, and must be "disciplined."

Mr Kapwepwe, who it is believed would pose a serious threat to President Kaunda in an open election, spent a year in prison in 1972 after his charge of attempted murder of a Unip official. He has since been disciplined.

Mr Kapwepwe has repeatedly attacked the present party leadership, and has been criticized by Dr Kaunda's political philosophy of "humanism" for some time.

He has been variously labelled as a "Smith agent," "tribal politician," and "divisive element."

Mr Kapwepwe got at least one of the other would-be challengers cannot attend the conference to lobby against the amendments because only party office holders are eligible as delegates.

It has been illegal for any of the candidates to campaign actively for the presidency. Dr Kaunda, however, in his role as President, has made many speeches warning of the "chaos and confusion" which would result if present Government policies were changed.

His "functionaries" have travelled widely, reminding the people of the accomplishments of the present administration while attacking unnamed challengers.

Under the present constitution, President Kaunda must stand for re-election every five years. But the 1978 election will allow voters to be aided by having "yes" to Dr Kaunda's candidacy "represented" by the national symbol while the symbol for "no" was a hyena.

As they announced the constitutional amendments, party leaders reassured the nation that the changes had nothing to do with Mr Kapwepwe's challenge to Dr Kaunda's leadership. Such changes, they said, were necessary to ensure the continuity of the party's philosophy of "humanism" for some time.

Thirteen to be executed in Uganda include officer

From Our Correspondent, Nairobi, Sept. 7

President Amin has signed death warrants for 13 Ugandans sentenced by the Uganda High Court. They had all been convicted of murder, armed robbery, and they include a lieutenant-colonel and a corporal.

In another eight cases, President Amin commuted death sentences to imprisonment.

Uganda spokeman as expressing concern about a wave of murders and robberies which was determined to stamp out.

Rhodesian civil servants set terms for staying

By Our Diplomatic Correspondent

Rhodesian civil servants are ready to stay on in Rhodesia under an African government provided they are given certain guarantees.

A representative of the Rhodesian Public Services Association, Mr Colin Rees, is in London to explain their views and will see Mr Ted Ronalds, Minister of State at the Foreign Office, next week.

"We are very glad that our position appears to be taken seriously," Mr Rees said yesterday.

Banning order on black leader in South Africa

Johannesburg, Sept. 7.—Dr Nkomo Motlana, chairman of the Soweto Committee of Ten, has been banned from attending public meetings until the end of September.

The banning order, signed by Mr James Kruger, the South African Justice Minister, was served on Dr Motlana in the black Johannesburg township of Soweto yesterday, shortly before he was due to address a meeting at the White University of the Witwatersrand on politics and education.

He was detained in last October's government clampdown on the political organizations. He was released in March.

After making a speech during the anniversary of the Soweto riots in June, Dr Motlana said police had threatened him with permanent detention if he continued addressing public meetings. Police denied they had made such threats.

The banning order is unusual in that it lasts only a month and does not restrict him to the Johannesburg area.

The Committee of Ten is opposed to the Government-backed community council in the township and has called for autonomy for Soweto. —Reuters.

Americans and Russians edge towards arms deal

From Our Correspondent, Geneva, Sept. 7

The American and Russian delegations resumed negotiations here today after a three-day recess. For a new strategic arms limitation treaty (Salt).

The heads of delegations, Mr Ralph Easley from the United States, and Mr Vladimir Semenov, the Soviet Deputy Foreign Minister, were not present. Both are in Moscow where Mr Paul Warnke, head of the American Arms Control and Disarmament Agency, is having discussions with senior Russian officials, including Mr Gromyko, the Foreign Minister.

The Americans now regard the negotiations as being "in the home stretch" with good prospects of agreement on a new treaty by the end of the year. Today's meeting was the 25th since negotiations began.

They say agreement has been reached on verification measures and on new totals for different categories of strategic nuclear missiles.

Restrictions being negotiated on new types of missiles and improvement of existing ones are said to include provisions to allow both superpowers to develop whatever they feel necessary for protecting their strategic nuclear forces from a knock-out blow.

Korchnoi's saffron-robed friends see him draw

From Harry Golombek, Chess Correspondent, Baguio, Philippines, Sept. 7

After a four-day break in the world championship match we saw a hard and exciting game today, but it was preceded by a curious and rather sinister incident.

Two American followers of the Indian Anand-Marga sect, who were sentenced to 17 years' imprisonment, an Indian diplomat in February and who are on bail pending an appeal, came to the convention centre to watch the game.

They had made an acquaintance of Viktor Korchnoi during his recent visit to Manila and had given him some psychological help by advocating various yoga methods.

One of the Americans, Miss Victoria Sheppard, was admitted, but the second, Mr Stephen Michael Dwyer, was at first refused entry. He was finally allowed in at the insistence of Mrs Peter Leutenknecht, Korchnoi's manager.

The Americans, wearing saffron robes, assumed lotus-like sitting positions, as though meditating, across the aisle from Dr Vladimir Znosko-Borok, the Soviet parapsychologist.

When play started, Korchnoi chose a variation of the Cata-

lan System as white. He got little or nothing out of the opening and position in the middle game looked, if anything, better for black.

Both players got rather short of time and after 32 moves Korchnoi had 10 minutes left and Karpov 11 for eight moves.

For once it was Korchnoi who played better under time pressure. Whether this was due to the influence of yoga or simply because Karpov was not used to getting into time trouble I cannot tell.

On the thirty-ninth move when a repetition of moves was about to occur the players silently agreed to a draw. Thus Karpov still leads 4-1.

Nineteenth game—White: Korchnoi, Black: Karpov. Catalan system.

1 P-C4 K-K3	21 Q-B3	R-P3
2 K-K3 P-Q3	22 B-K3 R-Q4	
3 B-K3 P-Q2	23 B-Q4 P-A4	
4 K-K3 P-Q2	24 Q-Q2	
5 Q-Q2 P-Q3	25 K-Q1 P-B3	
6 P-Q3 P-Q2	26 K-Q2	
7 P-Q3 P-Q2	27 R-Q2 R-K3	
8 K-K3 Q-Q2	28 R-Q2	
9 Q-Q2 P-Q2	29 R-Q2	
10 P-Q2 P-Q2	30 R-Q2	
11 P-Q2 P-Q2	31 R-Q2	
12 R-Q2 P-Q2	32 R-Q2	
13 R-Q2 P-Q2	33 R-Q2	
14 K-K1 C-K1	34 P-Q2	
15 K-K2 Q-Q3	35 R-Q2	
16 K-Q3 P-Q2	36 R-Q2	
17 P-Q2 P-Q2	37 P-Q2	
18 P-Q2 P-Q2	38 R-Q2	
19 P-Q2 P-Q2	39 R-Q2	
20 R-K1 B-K1	40 R-Q2	

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OVERSEAS

Speculation over swop of prisoners after mild Moscow sentence

Moscow, Sept 7.—Mr Francis Crawford, an American businessman, was given a suspended five-year labour camp sentence by Moscow city court yesterday after being found guilty of black market currency dealings.

The sentence, mild compared to the possible maximum of 15 years, was announced in a statement here that a "det-Amerikano" deal on prisoner releases is now going into effect.

Mr Crawford, aged 37, Moscow representative of International Harvester Company, had been in Moscow since 1963 "without a shadow of a doubt" and was not satisfied with the verdict.

In the event, Mr Crawford had not been expelled from the United States as soon as he had expected. He is believed to have booked a flight tomorrow.

Mr Sad

The harsher sentence was used on one of Mr Crawford's Russian co-defendants, Vladimir Kiselev, who was given five years in a labour camp with confiscation of his personal property.

Mr Kiselev, aged 40, a factory worker, testified that he had paid 20,000 roubles to Mr Crawford for just over \$8,000 (\$1,190). He was also found

guilty of selling the American six antique samovars for dollars.

Mr Kiselev's wife, Lyudmila, aged 26, was given a five-year suspended sentence.

A four-year labour camp sentence was passed on Alla Solov'yova, aged 23, a cashier. She admitted changing money with the Kiselevs and making black market sales of fur hats.

Giving his verdict this morning Judge Lev Mironov said there was "full confirmation" of Mr Crawford's guilt. But the court took into account that it was his first offence and that he was engaged in "socially useful activity."

The suspended sentence on Mr Crawford cleared the way for some similar arrangement involving two Soviet United Nations officials awaiting trial in the United States on espionage charges.

They were arrested not long before Mr Crawford. American officials saw Mr Crawford's arrest as direct retaliation.

According to unconfirmed reports quoted by Western diplomats here, his effective release might be a prelude to the freeing of the two Russians in possible exchange for Anatoly Shcharovskiy, the jailed dissident and the convicted spy Anatoly Filatov.

Dissident sentenced: Viktor Rukhiladze, a member of the Georgian Helsinki monitoring group, was yesterday given a suspended two-and-a-half-year labour camp sentence and two years in internal exile by a Tbilisi court after admitting anti-Soviet agitation and propaganda, Tass said.—Reuter.

Romania's Health Minister goes in further reshuffle

Vienna, Sept 7.—Mr Nicolae Nicolae, the Romanian Health Minister, was dropped on the Government today in the third ministerial reshuffle in Romania in three weeks.

Informed observers saw no obvious connexion between the latest change and a security crackdown believed to have cost two other ministers their jobs.

General Teodor Coman, the Interior Minister, was dismissed two days ago, apparently the victim of a purge after the defection to the United States of one of his deputies, Lieutenant-General Ion Pacepa, top security officer.

Mr Nicolae Doicaru, the Tourism Minister, a former general in the security services, was sacked in mid-August. Bucharest sources said last week that 12 senior officials were under arrest after the Pacepa defection.

The health minister's removal was reported briefly by the official Agerpres news agency without explanation. No successor was named.

Mr Nicolae, 57, had held the portfolio for two years. A doctor, he was previously secretary-general of the ministry. Sources in Bucharest said he had no known connexion with the security services, but might have been involved personally with General Pacepa.

Last week Mr Nicolae was criticised in the Romanian magazine *Flacara* over his role in a controversy affecting a doctor who claims to have discovered a cure for cancer.

The Pacepa defection led to a serious upheaval in Bucharest, and it was possible that President Ceausescu was in the process of a government reshuffle which could extend beyond the security services, sources said.—Reuter.



Teheran ban defied: Demonstrators in the Iranian capital facing troops armed with sub-machine-guns in a march yesterday held in defiance of a Government ban. The demonstrators, estimated to number more than 100,000 brought the city to a halt (Tony Allaway writes from Teheran.)

The city was also paralysed by a total closure of the bazaar and shops, from the big department stores in the centre to the small corner

shops of the outlying districts. Similar strikes were reported in provincial cities.

The Tehran protest march, the largest demonstration in the city in 15 years, lasted all day but passed off peacefully, as did a similar demonstration on Monday.

The Government had earlier said that security forces would stop any illegal demonstrations but

it appeared that after some rethinking it had been decided to avoid a confrontation.

There were indications of a great deal of planning behind the march, even though religious and opposition groups denied on Wednesday that one was being organized. The general strike was the first successful strike to be called in the city. Other recent strike calls have had little effect.

Country's annual monsoon scourge claims 898 lives

Indian Army to aid flood victims

From Richard Wigg, Delhi, Sept 7

One in every 20 among India's population of six hundred million is now a flood victim, according to Government estimates made public today.

Since the onset of the annual monsoon scourge over northern India in late June there have been 898 known deaths, more than 46,000 villages in 11 states and in Delhi's union territory have been inundated. 600,000 homes have been swept away or badly damaged and 4,000 head of cattle lost.

The first official estimate of the damage has been put at \$30m and the total area flooded at 8.78 million hectares. Standing crops covering 3.5 million hectares have been lost. The number of Indians affected by the monsoons extends thirty-two million.

The Government has already sanctioned immediate flood relief of \$33m, to come out of the annual plan, which would presumably have gone otherwise on long-term projects.

The figures were issued by the Ministry of Agriculture and Irrigation after central Government teams had returned from on-the-spot surveys in the worst affected states like West Bengal, Uttar Pradesh, Bihar, Rajasthan and Himachal Pradesh.

almost certain to prove on the conservative side, starting with the death toll. The worst affected state was Uttar Pradesh, the biggest in India. More than a million people are estimated to be flood victims in West Bengal and there are unofficial reports of dysentery and cholera there.

The crisis situation today engulfed Allahabad, where the Army was ordered by Mr Jagjivan Ram, the Defence Minister, who was on the spot, to divert all its resources to saving an embankment originally built for the Emperor Akbar in the Middle Ages.

The Ganges is now flowing 9ft above the danger mark in Allahabad and many low-lying parts of the city, which is also affected by the Yamuna river, are already waterlogged.

From Old Delhi's Red Fort the flooded Yamuna river merges indistinguishably into a sheet of water stretching with-out interruption for about five miles to the east and eight to 10 miles to the north. This is the extent of this year's monsoon flooding around the Indian capital.

The gardens of the world-famous Taj Mahal monument at Agra, south of Delhi, are likely to be submerged during the night, a spokesman for the Historic Monuments Department told All India radio. But he denied that there was any

threat to the building. Flying over the area today in an Indian aircraft I saw the staggering extent of the devastation, but also unmistakable signs that the flood waters are receding.

People in the urban "enclaves" were reviving too, but the most touching sights were as we flew northwards over the rural areas of Delhi's 575-square mile union territory. There were many isolated small peasant homes still wholly submerged, villages where families squatted on the rooftops, waiting hopefully for the Indian Air Force to drop them food. The villagers have been living off whatever they managed to salvage when the torrential rains first struck last Friday.

Cattle are very rare as many farmers cannily drove their precious animals southwards, even into the residential suburbs of Delhi a week or more before last week's rains, but I saw some forlorn little groups on some islets. Buildings as tall as granaries are half submerged.

As we came closer to Old Delhi we flew over block after block of houses, all completely abandoned, testimony that though sharp political controversy has begun over whether the Delhi authorities did enough, a massive evacuation occurred and tens of thousands of people were somehow saved from the waters.

Carter veto of arms Bill wins Congress support

From Our Own Correspondent, Washington, Sept 7

President Carter today won the support of Congress for his veto of a \$36,900m (£19,000m) arms procurement Bill by an encouragingly wide margin.

After a short debate in the House of Representatives, 286 members supported the veto and only 191 opposed it. For a presidential veto to be overruled both Houses have to vote against it by two-thirds majorities. Today's vote makes consideration of the veto in the Senate unnecessary and the draft Bill will now return to committees of both Houses for redrafting.

In what was widely seen as a move to assert his authority

over Congress, Mr Carter announced last month that he would veto the version of the Bill approved by both Houses. He complained that it channelled funds away from urgently needed military equipment into the construction of an unwanted and expensive nuclear-powered aircraft carrier.

The President's Democratic supporters in the Lower House campaigned actively on his behalf, together with senior members of the Administration and the armed forces.

Despite today's victory it is by no means certain that Congress will approve all the elements requested by Mr Carter and his defence advisers in place of the aircraft carrier.

Tunisians free three union leaders on bail

Tunis, Sept 7.—Twenty-five trade unionists, including the leaders of three big unions have been released on bail pending trial on charges related to the general strike last January, the Government daily newspaper *Le Presse* reported today.

Hungary puts its women back behind the wheel

From Our Correspondent, Vienna, Sept 7

Hungary is to revive a woman's right to drive a bus after almost 30 years during which only men were allowed behind the wheel.

There is a severe shortage of bus drivers, particularly in Budapest.

Experts say two shots in Dallas came from behind

From David Cross, Washington, Sept 7

A panel of distinguished medical experts has come to the uncontroversial conclusion that President Kennedy died as a result of two gunshot wounds to the brain, back and neck areas of the body, a Congressional hearing was told today.

With the aid of diagrams, drawings and other evidence, Dr Michael Baden, chief forensic pathologist for New York City, traced in minute detail the paths of the bullets through the bodies of the president and Mr John Connally, a former Governor of Texas, who was travelling in the same car as the late president on November 22, 1963—the day of the assassination in Dallas, Texas.

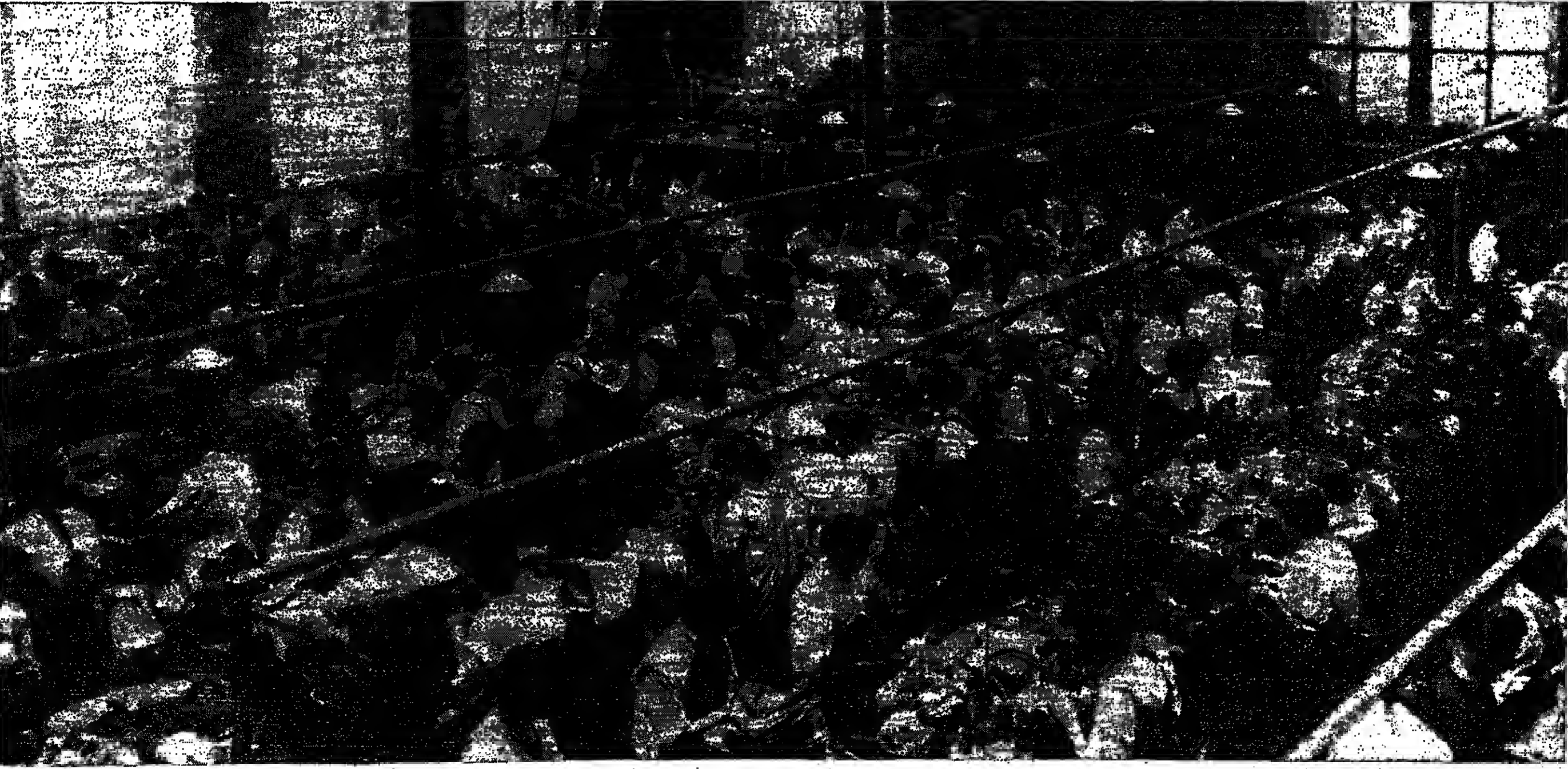
Dr Baden's evidence, before a televised hearing of the assassination committee of the House of Representatives, also suggested that the bullet which injured Mr Connally had previously passed through the president. Both shots appeared to have been fired from behind.

All these findings based on forensic photographs and various articles now in the national archives in Washington, including the cloths worn by the President and a bullet found lying on the stretcher which carried him to hospital, confirm the main conclusions of the Warren Commission set up to investigate the assassination.

The current round of public Congressional hearings, which are due to last until the end of the month, are designed to clarify various contradictory theories about the killing which have emerged in recent years.

Opening today's hearing, Professor Robert Blakey, the committee's chief counsel, said the handling of the late president's medical treatment and autopsy had given rise to more questions than any other single factor. This was because doctors who had examined the body immediately after the shooting had given conflicting accounts of their findings.

Professor Blakey also disclosed that President Kennedy's brain, which had been removed from his body during the autopsy, had since disappeared. A spokesman for the late President's family believed the material which was housed in a metal container had been destroyed, perhaps because of fears by his relatives that it might be put on public exhibition, he said.



Britain will have the same old problems, so long as it has the same old factories.

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THE ARTS

No heights of comedy from this Heaven

Heaven Can Wait (a)
Plaza, ABC Bayswater
and Fulham Road

Renaldo and Clara
Camden Plaza

The Silent Partner (x)
Scene 4, Classic Oxford
Street, ABC Bayswater
Road and Fulham Road

Dream Life
ICA

The Silent Flute (aa)
Columbia

A man called to his maker before his time and, by means of compensation, offered the body of another is a recurring plot to the cinema. It began as Broadway play *Heaven Can Wait*, by Henry Segal, and in 1941 was made into a film, *Heaven Can Wait*, with Robert Montgomery as the hapless mortal snatched prematurely by an over-eager messenger of God.

The latest version of the story keeps the original title and has been resurrected, if that is the right word, by Warren Beatty. He has rewritten the original Segal script, with Elaine May, the former companion in satire of Mike Nichols, and shares the directing credits with Buck Henry, whose screenplays have included *The Graduate* and *Shampoo*.

It seems to amuse along the lines of those splendid Frank Capra comedies where, by a mixture of fate and coincidence, a Mr Deeds or a Mr Smith is hoisted from the slums of his small town and, by virtue of his plain speaking and common sense, puts the world to rights, at least for a day or two. Somehow the sight of an American football quarterback (played by Gary Busey) as a boardroom of company directors on how best to make profits by accommodating instead of opposing conservationists does not warm the heart at all.

The most successful comedy

Warren Beatty arrives at a staging post to paradise in 'Heaven Can Wait'

moments come from the incongruity of the dapper, English-style, filthy rich eccentric who has, overnight, adopted the manners of the locker room. He will keep running up the stairs, talking the press the truth. Of course, he is not allowed to do it for long. He upsos too many people and the powers. Up there who, as we might have suspected, always prefer to support the status quo.

Strangely, Beatty can carry off this sort of whimsy by playing it straight and keeping the ludicrous premise credible. But the film is dogged by the nagging vision of what might have been: a sharp, biting script from Beatty or, even better, an appearance from her, Buck Henry writing instead of directing; Beatty, restrained from being everywhere at once by a tough director, perhaps Nichols. As it is, the film huddles along but never quite boils over.

Bob Dylan's film *Renaldo and Clara* rarely reaches a similar. It was while he was convalescing from his near-fatal motorcycle accident in 1966 that Dylan first turned his attention to film as a medium. "It was mostly rejected footage which I found beauty in," he said later: a telling remark. In 1976 he decided to make a film for himself, a previous film about him, *Durk*, looks back and *Eat the Documents* had disowned—but not about himself. "I'm not interested in

putting a picture of myself on the screen, because that's not going to do anybody any good, including me," he exclaimed. Two concert tours were arranged to raise the money and the result is *Renaldo and Clara*, a puzzling muddle of film of his 1976 tour, known as *The Rolling Thunder Revisited*, and some extemporised semi-fiction.

The plot (a loose expression, here) concerns Renaldo (Bob Dylan), Clara (Sara Dylan, his wife) and *The Woman in White* (Joan Baez). There are also characters named Bob Dylan (played by Ronnie Hawkins, a burly Canadian singer) and Mrs Dylan (Renee Blakeley). Despite Dylan's denials, autobiographical purging is plainly going on. Some words hint at his break up with his wife and his affair with Baez, odd scenes represent his early career, but there are few revelations. The enjoyable concert scenes are cut short and the purpose of the film is hard to fathom. He says that it is "about the essence of man being alienated from himself and how, in order to free himself, he has to go outside himself—an ordination which only confuses an already oblique message."

Dylan credits himself with direction, writing—although there appears to be no script—and editing, and it is said that he took a close command over all stages of the production. It is therefore difficult to understand why a man of his sensibilities has allowed such a

horde of unfinished, rambling junk to appear under his name. The film, in true Dylan style, is inordinately long, running to three hours 32 minutes. After two hours I had more than enough.

In *The Silent Partner*, a Toronto bank teller (Elliott Gould) attempts the perfect crime. Deducing that this branch is about to be robbed, he hides a stash of notes and takes them home after the heist, thereby defrauding the bank while leaving the thief take the rap. But the crook (Christopher Plummer) works out why his haul is so light and puts pressure on the cheery cashier to split his takings, two ways. It is a taut, unassuming thriller with some pleasing, if predictable, twists, and the director, Daryl Duke, makes the most of Gould's heartlike looks and good humour. However, the Plummer character seems unnecessarily vicious for such a light-hearted story, especially when, in a truly horrible scene, he decapitates his mistress on the shattered glass of Gould's aquarium.

Dream Life was also made in Canada and claims to be the first Canadian feature directed by a woman, Mireille Dancser. It has a feminist message, often hinted by some naïve sub-Ridley, symphonic, Isabelle (Liliane Lemaire-Auger) and Virginia (Vernique Le Gai) are two Quebecers working in a company

which mainly produces exaggerated advertisements for consumer goods. They race to this false portrayal of reality by living out their own lives as a fantasy. Isabelle develops a romantic fixation on a married man, who, we are led to believe, represents her father. The film is, in times, incoherent and, by commercial standards, poorly made, yet it has a vitality and freshness which many more elaborate films on a similar theme conspicuously lack.

Finally, *The Silent Flute*, which might have been called *The Shogun Brothers Go West*, Jeff Cooper, drifts like Hercules through a land peopled by men with names like Mordecai and Zeran and has to prove himself proficient in the martial arts at every turn. David Carradine, reviving the character he used in the television *Kung Fu* series, is a blundering, mystical know-all, and Roddy McDowall, Eli Wallach and Christopher Lee put in brief appearances. The hard-core work, however, was done in the sound dubbing studio, making all those back-slapping whips-cracking, bone-crushing noises.

In my report last week from the Edinburgh Film Festival I failed to make clear that John Robertson, who played the principal character in *Night Hawks*, is a professional actor, unlike the rest of the cast.

Nicholas Wapshott

An Irish nightmare

Werewolves
Theatrespace

Irving Wardle

Greeted as Poland's best new play of 1976, Teresa Lubkiewicz's peasant drama arrives in the well-appointed basement of 29 King Street in a truly astonishing version by Helena Kaut-Howson who has shifted the action from a Byelorussian village to rural Ireland.

Affinities are often drawn between these two countries, but they do not prepare you for experiencing what seems to be a totally Irish play in the black tradition of Yeats's *Purgatory* and the Kerry fantasies of George Fitzmaurice. Point by point, the wake scene (with a corpse sitting up in the coffin), the paid keepers, the central situation of a bachelor son kept in middle-aged dependence on a stubborn parent, and the inescapable sense of the past preying on the present, all fit into the new setting with nightmarish precision.

The play refers to a group of paramilitary intruders who invade the wake and the subsequent wedding party, and finally destroy their host. In Lubkiewicz's terms, these seem

to be ex-partisans, showing the machinery of warfare turning into internecine self-destruction with the cessation of hostilities. But in the new context, the werewolves belong far more to the present than to the past.

The action of the piece is not easy to follow partly because critical information tends to arrive later than one needs it, but mainly because of a dramatic convention mingling past and present and allowing the dead and the living to coexist at once simultaneously and in flashback. I also found Miss Kaut-Howson's production mannerism. However, the quality of the writing is such that you never doubt that you are in an authentic world, no matter how unfamiliar.

Anne Dyson, as the old mother, stretches out to a confidant to deliver a deathbed secret. "I want to reveal to you a recipe for liver sausage." There is no faking that kind of line. The text is rich in them and in horrendous scenes of simultaneous violence and banal gossip among those who happen to be escaping it. I cannot describe *Werewolves* as an entertaining evening, but the production contains some fine acting (from Deborah Sack and Bernard Strohmer as well as the sepulchral Miss Dyson), and I shall not forget it.

Mary Barnes
Birmingham Rep
Studio

Ned Chaillet

"Our liberated zone" is how one therapist describes a house just converted for community use. Another name is "non-coercive environment." For Mary Barnes it is a place where she can take her "voyage" or, as she describes it, have her breakdown. For the year before the community was ready, Mary, a nurse, has been resisting the breakdown, staying just on the safe side of socially acceptable behaviour, but when she moves into the house she collapses, curling into a foetus and begging to be fed through a tube.

Hardly thinking, but acutely aware of his task the moment he volunteers, an American therapist called Eddie agrees to feed her through a tube. His involvement in her life becomes complete, supporting her through hysteria and starvation, cleaning her when she smears herself with excrement and guiding her to self-awareness by giving her crayons and a means of expressing herself.

The story, dramatised by David Edgar in his new, documentary manner, is true. Mary Barnes travelled back through her mind, correcting her faulty

life by living her childhood again, establishing a new family in a therapeutic community of Kingsley Hall and establishing a name for herself as an artist. She told the story in a book, written in part by herself and in part by Joseph Berke. On the stage, it is an enlargement of Mr Edgar's concept, the state he is making a place of first importance, but that the social structure must be altered. By contrasting Mary's rich progress in a free environment to the drugged docility of her brother, treated for mental illness by the state, he is making a plea for greater understanding of the mind's potential, and for a reconsideration of the definition of madness in society.

It is not uncritical, nor unaware of the difficulties of building such communities in a defensive "safe" society. Mary's "voyage" is a vicious and dependent on Eddie attacks his girlfriend, and Mary feels guilt for their attack. Part Love's strong performance, besides the range of Mary's setting, is a special glowing effect, though the perhaps settles on too childlike a maturity under Simon Callow's finely controlled guidance as Eddie.

Peter Farago has offered a powerful and revealing production.

Janacek with a lot of help from Söderström

The Makropoulos Case
New Theatre Cardiff

John Higgins

The Janacek cycle planned jointly by the Welsh National Opera and the New Theatre Cardiff this week with *The Makropoulos Case*. The team is the one which got the project off to such a successful start with *Jenůfa*, a producer David Pountney, designer, Mary Björnson, and conductor Richard Armstrong. They have been joined by Elisabeth Söderström as Emilia Marty, the woman who has watched the world for 339 years and cries "Enough!" before her three hundred and fortieth summer arrives. She is a star capture for the WNO and she obliges with a star performance.

In the fifth anniversary of Janacek's death, British citizenship of the Czech composer has attained such fervour that it is almost reasonable to breathe a critical word. But *The Makropoulos Case* is not one of his best stage works. He was less happy in the strictly urban dress of this, his penultimate opera, and of Mr Brouček than he was among the villages and woods of *Káry* or *The Fishers*.

Janacek was a warm and humane writer and *Makropoulos* is a child subject. Karel Capek's original play saw to that. Capek was careful to call his *Makropoulos* a comedy and David Pountney is equally careful to spice his staging with humour so that it becomes a far less dour affair than John Blatchley's over-praised production for Sadler's Wells. Capek himself points out that the elixir of life, that much sought after liquid, is no blessing but a curse. *Makropoulos*, a court physician, discovers it and is forced to try it on his daughter; he is executed for his efforts, but she lives on and on and on.

She is back to Matusaleh, written a little before *Makropoulos*, argued spurnously that great age brought great wisdom. Capek, more practical and more pessimistic, put the case for a modest life span. Janacek, who was in his seventieth year when he completed his opera, could have been forgiven for wondering just where he stood. His score is as economical as ever. There is scarcely a wasted note in the music, which runs less than ninety minutes, nevertheless the opera takes too long to rise. The first act, concerned with a marriage law suit which accidentally re-associates Emilia Marty with her previous reincarnations, is a static affair. The work gains force only when Emilia realises that for all her fame as a diva and for all her sexual allure she is but a hollow shell. "Passionless as death, you were like a corpse," Count Prus partly observes after his one and only sharing of her favours. Emilia and the score truly



Elisabeth Söderström as Emilia Marty

come to life when she discovers the secret of death. The close of the opera is as fine a soprano vehicle as the end of Strauss's *Capriccio* was to be a decade later. Söderström's Emilia relishes that challenges just as her Countess always does. The imperious face of the prima donna fades into the mask of mortality as Emilia crumples into a heap on the floor. The words of WNO's newly commissioned translation will be: "Beryl Grey's production of *The Sleeping Beauty* to Newcastle (Theatre Royal) on November 27 they will present *The Sleeping Beauty* and (Friday and

The Makropoulos Case is as much a one-woman show as, in a totally different musical context, *Hellø Dolly!* or *The Act*. The supporting cast are admirers almost to a man. Excellent comes from Thomas Hensley (the lawyer Kojanaty), Neil Howler (Count Prus), and Neil Douglas (poor, mad Hawk). One or two of the younger singers had to shout to be heard over Richard Armstrong's vigorous conducting. Maria Björnson's exemplary sets place Emilia, and the dusty trappings of human endeavour, the piled tomes of the lawyer's office, statuary

from some baroque opera, the decaying clothes of an over-extended life. The jagged strips of lightning suggest the expected doom of Capek's day, a Veidt or a Stroheim might step from these crumbling walls. David Pountney's production is as harsh and unsentimental as the work itself. *The Makropoulos Case* half-emptied the Coliseum when it was revived. The WNO can graduate themselves on filling the rather smaller New Theatre for the brief run of performance and on their foresight in securing Elisabeth Söderström. Janacek needs her.

Nature made tiny

"Nature wants cooking" was one of the sensible dicta of that eminently sensible painter John Varley. Just how he went about the cooking becomes abundantly clear in the bicentenary exhibition enterprisingly put together by his nephew, the painter, at the Chalmers, at 10, Coleridge Street, Newington. In water colour after water colour we can see the landscape, if it is not all along a purely imaginative construct, gradually ridged and composed to bring nearer a discreetly romantic heart's desire.

In the case of the finished picture of *Delgelly*, for example, Varley left the evocative lying around in the shape of an on-the-spot study, so that we can see, for ourselves, how the mountains in the background are regrouped to make a more pleasing pattern and the town buildings in the distance disappear in a grander, and quieter outline. The large and elaborate *Cherrie Walk* of 1811 is not only bathed in the light that never was on loam or sea, but cunningly exaggerated in the vertical to glorify the overall effect. And if the Walker Art Gallery are correct that one of his loams is meant to be Sandgate, clearly the flat reality of the Romney Marsh, lost or completely to a sheer fantasy of tower-capped crags.

All of which is very sensible in relation to the requirements of Varley's customers: as the artist quoted on the walls constantly point out, he was no genius, but a thoroughly proficient journeyman painter and teacher. His sensibleness, however, seems to have been confined to his work. He encouraged Blake to draw his visions (one of the visionary heads included here) when most other people presumed he was dotty, and his great sparetime obsession was astrology, which should make him a congenial figure in the age of Aquarius. The show includes the horoscope he drew up for Samuel Palmer's wife, and one specially drawn up for a modern astrologer for him. This sounds from what we know to be pretty close to the mark, and at least serves to demonstrate that this show has been approached in absolutely the right spirit.

A considerable tribute to journeyman painting of the early nineteenth century is at present to be seen in *A Picturesque Ride Through Surrey* at the Guildford House Gallery, Guildford. It is a rediscovery of John and Edward Russell, father and son, topographical artists whose major work seems to have been done in and around Surrey in the 1820s. John was also a drawing teacher who published several books on the subject, and the author-illustrator of three great topographical books in anatomy: Edward, the finer daughters (perhaps architect friend), seems to have specialised in church interiors.

John Russell Taylor

BBC SO/Boulez
Albert Hall/Radio 3

Paul Griffiths

Pierre Boulez, now concerned more with his musical research institute than with the concert platform, gave his only prom of the season when he conducted two twentieth century Viennese classics: Berg's violin concerto and Mahler's *Songs of the Earth*. Both are works of farewell, the Berg seeming very much a personal elegy with so feeling a soloist as Pierre Amoyal.

Although sweet-toned and pure, Mr Amoyal was free in his resort to romantic rubato and other intimacies of phrasing, spinning a violin song which came to excruciating contrast with the crystal freshness of the accompaniment. That contrast became most open in the last quarter of the work, where Mr Amoyal introduced the chorale tune with a rich degree of portamento, to be answered by the unwavering

neatness of Mr Boulez's clarinet, and it worked. The violin was, as it should be, the expressive focus of the whole concerto. Mr Boulez came to the fore in *The Song of the Earth*. He evidently enjoyed the many opportunities offered by the score to make chamber music with members of the BBC Symphony Orchestra, and his alertness to the work's choralities, with Hermann Winkel stepping in at short notice to give a robust view of the tenor line, the first songs had a generous yet brisk touch of gaiety.

When it came to the final song, Pierre Boulez's clear textures and marked changes of tempo removed some of the sense of world-weariness, substituting a new momentum, which came to excruciating contrast with the crystal freshness of the accompaniment. That contrast became most open in the last quarter of the work, where Mr Amoyal introduced the chorale tune with a rich degree of portamento, to be answered by the unwavering

Allegri Quartet/Brymer
Wigmore Hall

Max Harrison

The first of the four Haydn/Mozart/Schubert concerts that the Allegri String Quartet is giving to celebrate its twenty-fifth anniversary—began with Haydn's Quartet Op 77 No 1, and this intelligent music received intelligent performance. The textures and particularly the rhythms were clear and exact yet at the same time sprightly and flowing. Schubert's tone qualities are accurately required in such music, yet the adagio was a little dry, even with the Wigmore Hall's helpful acoustics; it was finely shaped, however. The midwest is quite sympathetic in its seriousness and weight of argument, while the closing prelude is taut and wiry; both got an alert performance.

Greater warmth was projected in Mozart's Clarinet Quintet K 581, and that was obviously as it should be. The first movement was taken

honestly and some of the allegri's detail, especially in the exposition, was sketchy. But here as elsewhere, Jack Brymer played the clarinet part with perfect full-toned ease and the most refined musicality. The surprisingly beautiful harp, the string sound again was not on quite the same level as his, and the final variation movement was the best adjusted.

In Schubert's D minor String Quartet D 810, events take place in a more dramatic music, has a more overt fire. The result was the evening's best performance. The players seemed to release stronger feelings into the work. In the first movement, for example, everything was more sharply drawn than in the Haydn or Mozart pieces, and the music's intense tension was held despite Schubert's characteristic lyrical asides. That was also true in the andante con moto variations, where the music was more turned on itself. There was a noticeably wide range of dynamics and it was an altogether well unified performance.

Philharmonia's next
season

Cycles of symphonies by Tchaikovsky, conducted by Riccardo, and the symphonies of Mahler, conducted by Lorin Maazel, among the concerts planned for the Philharmonia Orchestra's 1978-79 season. The Tchaikovsky symphonies will be heard next June and July; the odd-numbered Mahler symphonies will be performed in November and the even-numbered ones next May and June.

In a series of four concerts Andrew Davis will conduct the main orchestral works of Elgar, including the two symphonies, and the two concertos, plus

Faust and *The Music Makers*. On October 17 James Gahagan will give the world premiere of the Concerto Pastoral, which was written for him by the Spanish composer Joaquín Rodrigo. Next March the orchestra will give the British premiere of another modern Spanish work: Cristóbal Halffter's massive cantata, *Yes, Speak Out, Yes*, which calls for two soloists, six voices, two choruses, and two orchestras. The composer will be one of the two conductors. Other conductors during the season include Kurt Sanderling, Yorgo Stilianou, Kyri Konradashin, Simon Rattle and Vladimir Ashkenazy. Soloists include: Sviatoslav Richter, Nathan Milstein and Efi Gileadi.

Some of these reviews appeared in later editions of yesterday's newspaper.

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The nation's health

NHS—the whole thing a mistake?

George Hill

developed nations are more or less perched about their health, but only Britain is fully and incurably perched about its National Health Service. There is a capital letter: the NHS makes all thought about health problems in this country, often to the point of obsession.

The idea of a free health service was Britain's distinctive contribution to post-war thinking—we lost an idea and gained a national Health Service. It still has a special place in our national idea of ourselves. But it has not been imitated abroad and the ideals that surrounded its birth remain unfulfilled, while in recent years it has been plagued by internal conflicts.

The NHS is the special guilty conscience that attaches to the country's political life; hence the past decade has seen a series of arguments about its future. The issues like pay, beds, prescriptions, charges, etc., are all significant but are of a secondary nature. The real issue is whether the NHS is a mistake.

There is no national institution that has wider support than the NHS. There is no disagreement between the political parties about the essential inviolability of this sacred entity. Since it is obvious that it is not well, it is bound to figure large in political debate.

The debate will seem to be mainly about money. It is dictated more by the nature of the service than its objective inadequacy. Its claim to offer comprehensive care is, in a real sense, impossible to fill within any conceivable allocation of funds.

This means that the most serious problems are about priorities within whatever budget the nation can afford. But since decisions of that kind necessarily mean choosing on purpose to treat one group of patients or one area of the country less favourably than another, there are no easy rallying calls in that direction. It is simpler to call for more money all round, as the chairman of the British Medical Association did recently.

But for politicians, even that is less simple than it was. In the last major Commons debate on the NHS, Mr Patrick Jenkin wondered whether he was the first Opposition spokesman on health to refrain from demanding a massive new injection of funds. Such a demand would chime in awkwardly with the Conservative Party's commitment to thrift in the public sector.

As recently as a year ago, the Conservatives were loudly speculating about new ways of raising money for the NHS without violating the sacrosanct principle that medical care should be free at the point of delivery. As election time approached, they grew perceptibly more discreet, preferring to emphasise the advantages of waiting to see what the royal commission now examining the NHS might recommend about finance.

On the Government side, Mr David Ennals, confident of the appeal of a free service (and equally unable to offer massive injections of money), repeatedly challenges them simply to admit that they have open minds about possible new sources of finance.

Theoretically, the most fundamental change discussed in Opposition circles is a transfer of the main funding of the service from general taxation to national insurance. Mr Jenkin believes that it is a "frailty of our human nature" to pay more cheerfully for identifiable public services than for all of them lumped together, and that the NHS might profitably and legitimately take advantage of this frailty.

It is also claimed that a service based more on insurance would be less dependent on political factors for the size of its income—a view which attributes an implausible frailty of mind to future Chancellors of the Exchequer.

Transfer to insurance would be a change mainly in appearance unless different rates of premium secured different standards of care. But most Conservatives know that in the eyes of the public that would amount to sacrilege against the medicalised ideals of the NHS.

The Opposition is determined to raise prescription charges, which have remained unchanged since 1971 (the Labour Party remains committed in principle to abolishing them altogether). The Tories also speak of possible "hotel charges" to meet the non-medical costs of hospital patients. The former might raise up to £30m at negligible cost in administration or deterrence to patients; the latter might raise as much, but probably at greater cost. Exemptions from charges mean that almost two thirds of patients would pay nothing anyway.

The Conservatives also mean to encourage the revival of private treatment in NHS hospitals, which earned the service £26m last year. But these possible sources of extra income look small beside the £6,300m that the NHS spent last year. The most they could add would be less than one year's growth of expenditure in real terms, in a period of severe restraint. The great problems lie elsewhere.

Controversy over the private sector outside the NHS has died down, but could easily revive. Some members of the health service unions will be content with nothing short of a NHS monopoly in hospital treatment, while many doctors would see that as involving the ultimate extinction of their professional independence.

The economic recession has exposed the limits of the private sector's role. The private sector's role is more clearly than before, in terms of new clinics and new subscriptions, it has been modestly thriving. Total expenditure has risen at almost exactly the same rate as NHS spending in the past seven years. But fewer individuals are becoming subscribers. The growth is forward and cheap. The care



Tony McSweeney

It is inside the NHS itself that the real battles have to be fought. They involve grave political judgments, but ones to which party politics do not seem very relevant. The leaders and the moderate wings of the major parties are not greatly at odds in their overall view of what needs to be done. But the many conflicting local and professional vested interests make it difficult to agree on the details. Every step injures feelings somewhere.

Morale in the service, perennially under strain, was perhaps as low as it has ever been 12 months ago. If anything, it is a little steadier today, but it is in no state to endure any more upheavals. Even without the conflicts of the past five years, the service would probably have experienced some kind of crisis of self-doubt in the 1970s.

Health services in many other countries are doing so too. Elsewhere the apparently irresistible tendency of the sector to devour a growing share of national resources has aroused concern about whether its appetites can be curbed. The British are almost alone in worrying that they are spending too little rather than too much.

There is room for much argument whether this represents the great triumph or the great failure of the NHS. The evidence is strong, however, that such resources as we do devote to health are being spent relatively economically and relatively fairly.

But within the NHS the crisis of self-doubt has coincided with the stress caused by an unsuccessful administrative re-organization, the loss of, in addition, about industrial conflict and, of course, shortages of money.

The perplexity about aims stems from a growing realization of just how much and how little medicine can do. Technological advances produce spectacular miracles—bacteria conceived in vitro, corpses kept breathing for decades. But the general gains in expectation of life—even of alert and pain-free life—seem disappointingly small. Decent drains and air pollution controls have probably done more for health than all the hospitals ever built.

This kind of thinking leads to a mistrust of expensive and dramatic medicine and a desire to make services, limited as they must be, meet actual need as closely as possible. Since no calculus exists for weighing one kind of human suffering against another, the process is a painful and controversial one.

Most of the recent much-publicized disputes about underfinanced services and hospital closures are the result of the attempt (on the basis of evidence admittedly imperfect but not worthless) to marry provision better to need. The restraints on public spending would not have hurt nearly as much if they had not coincided with these upheavals, the case for which is in principle, at least, unassailable.

In the next few years the particular need will be to expand facilities for the very old, whose numbers are going to increase. Many doctors and nurses find little fulfilment in this work. The more it can be aimed at keeping patients away from the geriatric ward, the more rewarding it becomes.

Effectiveness in this sector and economy everywhere dictate a policy of care away from hospital, with more emphasis on prevention and closer partnership between doctors and other caring professions. Doctors used to taking the responsibility will not always find the more complex relationships.

The change in the way the doctor's role is seen has been sharply accelerated since 1975 by the profession's own behaviour. The sanctions imposed first by the consultants, then by junior hospital staff were not the first major instances of industrial action within the NHS and they did not involve outright abandonment of patients. But patients suffered, and their suffering was used to bring pressure.

These examples encouraged the often bizarrely irresponsible actions that have followed. No doubt the atmosphere would have changed anyway, for many struggles about striking have faded during the same period in Britain. But it is clear that the service can no more go back to its previous position than Adam could have done once he had tasted the apple. The paradisaical primitive industrial relations procedures of the service will have to be greatly strengthened.

Such a need was undreamt of a mere four years ago in the great reorganization of the NHS's structure. Never can a plan have been drawn up with such elaborate consultation; never can one have strangled itself so quickly in its own complexities. Many of the criticisms made of it are contradictory, reflecting the confusion in the service about ends and means (the complaint that there are too many administrators, in particular, is essentially a grumble of doctors for whom every penny not spent on drugs and electro-cardiograms is money wasted).

The structure is as remarkable for its gaps as its superfluities. There is no national forum where all groups involved can discuss broad policies. If the health service unions had taken a share in planning the reallocation of resources, doctors might have reconciled themselves more easily to cancelled building plans, and the ancillary workers could scarcely have played such a conservative part in fighting against almost any closure involving loss of jobs. At district and even hospital level there should be more freedom to take decisions within the framework of national policy, and greater financial accountability to give a motive for economy of service.

The importance of the regional authority would decline and the need for area-level authorities probably disappear altogether. But any reform must be tried out in the field before the imposition of another giant national system is considered.

There are too many interest groups in the service for any change to please everybody. Not the least important interest group to listen to is that of the patients themselves. The most important questions that will face the next secretary of state will necessarily be political ones, for redistributing resources and recasting the administrative structure are political problems in the fullest sense. But they are not problems that the weary catchphrases of party politicians will be much help in solving.

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Real growth but no boom in private sector

by Nicholas Timmins

In 1976, on the day the Health Services Act became law, Mr Gordon Blackall, the administrator of the Independent Hospital Group, had a map on his wall covered with more than 100 coloured pins. Each pin represented a proposal for a new private hospital.

With the Act about to remove 1,000 of the 4,444 NHS pay beds at a stroke, and then gradually to phase out the remainder, the head of the day screamed about a boom in private medicine. Today, if he had a similar map, it might have 25 pins on it.

The difference is that the 25 stand a real chance of coming to fruition over the next three to five years. The vast majority of the 100 never got past the drawing board.

But the 25—seven of which are far enough advanced to have launched appeals to raise the £1,500,000 needed to build the 30-bed units that make up most of the proposals—were a key plank in the development which Mr Michael Lee, consultant economist with Lee-Donaldson Associates, and the man who provides the Department of Health with its statistics on movements in the private sector, believes will turn the private sector into a Private Health Service, split with capitals, perhaps a complementary alternative to the NHS.

For while it would be an unfair jibe to dub Mrs Barbara Castle as the patron saint of private medicine, it is true that the Act which resulted from her determination to end the inequities of the NHS paybeds is the architect of a separate private health service.

The Health Services Board, whose job under the Act it is to phase out paybeds, can remove them only if they are under-used, or if alternative facilities exist in the private sector.

Faced with the assurance in the second of those criteria that many of the paybeds will be with us for years, as well as the challenge of the Act, the board must be made to seek out alternatives to paybeds, neither the consultants who do the private work, nor those who run the independent sector, are going to win and die. Economics permitting, they are going to grow.

For after the alarms of 1974 and 1975, the Act means "We know where we stand", Mr Derek Damerell, chief executive of the British United Provident Association, the giant in the health insurance market, says.

By making everybody sit up and assess what could be done, the Act has set the private sector on a more stable growth pattern than ever before, he believes.

There will be the facilities. Private medicine, outside the NHS has been growing for years. Mr Lee's figures show that in 1970, the year before standard charges were introduced for paybeds, exactly half the £40m spent on private health care went to the NHS. By 1976, almost 70 per cent of the £134m then spent was in private hospitals, not in paybeds, and the proportion for last year, when expenditure rose to £165m, is likely to be higher again.

In the two years from 1974, when the pay-bed troubles started in earnest, expenditure in the private sector outside the NHS rose by one quarter in real terms. For all the switch in private

spending from NHS paybeds to private beds outside the health service, however, the overall growth in the private sector from 1970 to 1976 did no more than match the growth in spending on the NHS itself.

The signs for growth are also there. Subscriptions to the provider schemes fell away in 1975 and 1976 as the economy dipped and paybeds were a political hot potato. Labour taxed adoption and both BUPA, which holds 75 per cent of the market, and Private Patients Plan, which holds 23 per cent, saw their numbers fall.

But both major are set in the next month or two to top their highest previous total of subscribers, raising the numbers to the 1,100,000 mark, with the numbers covered by subscriptions to 2,300,000.

The signs for growth are also in hospital building. Appeals for seven small units round the country are about to go out. American Medical Europe, the largest group in the commercial side of the private sector, has firm plans for a 150-bed hospital in Manchester, 99 beds in Harrow, 60 beds at Watlington and perhaps another 100 in Birmingham—a total of £14m investment.

BUPA this year will open a revamped 147-bed unit at the Nightingale Hospital in London, with 84 more refurbished beds at St Joseph's, Manchester, where it has planning permission for 140. BUPA also plans a £10m 200-bed hospital for London, possibly in Chelsea, or Kensington, while the Nutfield Nursing Home Trust, the BUPA-owned "non-profit-making trust which in many ways forms the backbone of the independent sector, has small hospitals being completed at Leeds, Newcastle, under Lyme, Stockton and Wolverhampton in bringing its tally of units to 31 and its bed total to more than 1,000.

All hospital developments have to be notified to the Health Services Board, although its authorization is needed only for units of more than 100 beds in Greater London, and 75 or more elsewhere.

What does all this mean for the NHS? And what does the private sector really have to offer? For the NHS, the size of the private sector has to be kept in perspective. But its figures show that four million people in Britain opt for private care when ill. But the figures show that for years private health spending has hovered around 2 per cent of spending on the National Health Service, that proportion may be rising marginally, but it is still tiny.

In standards of care, ruling out the NHS blackspots, there is nothing of significance to choose. The surgeon who performs a coronary bypass at the Harley Street Clinic, probably did one earlier in the day at the National Heart. The same is even truer outside London.

And indeed a case can be made that in some respects care is less good in the private sector. The Wellington, the Harley Street Clinic, and the Princess Grace, for example, all have only one resident medical officer on duty at a time. A NHS hospital can probably offer a senior registrar on call, and anaesthetists and other specialists all actually on duty within the hospital.

While the private sector can offer the best in medical technology, much of it—the Nutfield Nursing Home, for example—is no more geared to fashion than Bolton General. The private sector does not—and has no plans to—offer emergency service the NHS provides.

But what it does offer is what BUPA describes as "prompt treatment", and the opponents call "queue jumping". And it offers the chance to choose who you go into hospital—something the NHS singularly fails to do, and one of the factors that makes the health assurance such an attraction to employer and the self-employed.

Opponents of the private sector clearly see it as a competitive threat to the NHS, and it is easy to see why. But the man who runs the private sector strongly denies the charge, arguing it is complementary.

Mr Damerell concedes that the present pattern of provider subscribers "must reflect dissatisfaction with the NHS. There has been a great deal of publicity, some justified, about the NHS. But we are not in competition with the NHS. When patients are treated privately they are taken out of the waiting list. That list gets shorter. The doctor treats them outside the NHS and the cost is borne privately, not by the health service, or by hospitals the NHS has not had to provide."

Dr Balfour-Lynn says: "No country is capable of delivering health care to its population. The private sector must help the public sector. If a patient goes privately he is saving the NHS money. He is not jumping the queue, he is coming out of it."

The author is Medical and Science Correspondent, The Press Association.

by John Roper

It is a myth that what is wrong with the National Health Service is that it has too many administrators. The off-quoted rise in staff from 58,262 in 1970 to 74,716 in 1974—a trend which has continued, bringing the total to more than 98,000—now covers clerical as well as administrative staff, and is an indication of increased bureaucracy. A more important figure is total management cost in salaries and wages, which at about 6 per cent is low for an organization spending about £6,000m a year and employing nearly a million people.

What is wrong is the administrative structure. Reorganization, which involves even more heated debate in the NHS than problems needed to be solved. Teaching hospitals, experienced and dedicated administrators have done their best to make a workable system. But the Health Services Act of 1974 was soon followed by an exodus of many able administrators.

Many could not face the final results of years of discussions, notable as much for disagreement as for agreement. Three Government Green Papers, amending each other, were followed by a White Paper with amendments, and what became known as the Greaves Report, which set out management arrangements. Administrators who had served the NHS for years.

The medical profession is patients would suffer the most. Consultants complain that their jobs have been made for them difficult because the time it takes now to get a decision on even small matters; and in ensuring that decisions are taken with proper appreciation of complex medical needs. Surgeons are frustrated because health authorities lose whole operating sessions as a result of the shortage of anaesthetists and radiologists. Until a few years ago, not many graduates were attracted into those specialties or pathology.

It is recognized that shortages of consultants and other staff in unattractive specialties but in "unattractive areas", where few want to live or work, should be vigorously tackled and that the profession must play its part.

Mr David Bolt, chairman of the Royal College of General Practitioners, says that the NHS has produced an immunity of consultant manpower. The number who move is small. Conditional upon what financial pattern emerges for the NHS, his view is that the present trend to continue the service will continue to supply a first-class service for emergencies, a good service for the gravely ill and a diminishing service for patients with less urgent conditions. Therefore more and more people will go outside the NHS in search of treatment.

Primary care has always been an important part of the way in which British medicine is organized. It is getting an increased allocation of resources at the expense of hospital services. For the 26,000 general practitioners who work in the service, time to assess, diagnose and treat the increasing stream of patients for whom they are the "doctor of the first contact" is the greatest difficulty.

Surgery sessions have become more complex. Thirty years ago general practice medicine was comparatively simple. Patients came with aches and pains which refused to go away. Today initial consultations are about 15 minutes and many contain the real trouble, uncovered late in the investigation, and lying in the psychological, psychiatric or sexual difficulty areas.

Family doctors claim that in the hospital service consultants can adjust the service to the time they give, but the GP's terms of service mean that he has to see everyone. Many think that the appointments system has contributed to the difficulties, because patients with an appointment were concerned to "get their money's worth" and therefore took up time.

The system is also responsible for much of the antagonism against "doctor receptionists" who make appointments. The solution, as far as general practice is concerned, is not that there should be more doctors but that the public should be educated not to consult a doctor unless it is really necessary.

In terms of medical importance general practice is marching forward. When the NHS began, GPs all but disappeared from hospitals and it has taken 30 years for them to get back. The hospital practitioner grade is now established as part of the general practice service. Family doctors now have easier access to X-ray, pathological and radiography services in hospitals.

J.R.

New structure is key to NHS future

nomble right: consultation. There are those who say about 6 per cent of the proposals for important changes or big projects. If the NHS were "adequately financed", Pumping Hospitals could be closed, the only if the local CEC agreed. If it objected, the proposal had to go to the Secretary of State for decision.

The main failure of the present structure is that quick decisions are impossible. The Department of Health sends out a crushing amount of documents containing guidance, advice and instruction—often, those in the field claim, without true understanding of the practical difficulties involved. Reorganization might have worked at least a little more smoothly had it not coincided with the world oil crisis.

Much goodwill and dedication and even trust melted away and the service became too much harder to run. For the first time in the history of the service, doctors and nurses took industrial action.

The justice of the nurses' pay claim and that of the professions supplementary to medicine was seen by an independent committee under Lord Halsbury. The long overdue adjustment meant, for example, that nurses' pay increased by 31 per cent in one year and there were improvements in conditions, including more time off.

But in a service now feeling the economic squeeze the effect on budgets was drastic. There is much debate on how best to tackle the ills created by reorganization.

There is general agreement that the service would benefit if one tier of authority was removed. Which tier must await more consultation and debate: on the possible advent of a Conservative government (which would be likely to abolish the 90 area health authorities) and the report of the Royal Commission on the NHS, expected next spring, which will perhaps make new suggestions on hospital management.

There is growing support for the "small is beautiful" concept, with greater power of decision much nearer to the point where the service meets and treats patients. There appears little possibility that the NHS can be taken out of politics, which many advocate as if it would be a cure-all. Only

is still great dedication there is less common spirit. Our hospital service has given considerable sacrifice and devotion, but become more a work place where a job has to be done. Trade unions, which have been members among NHS workers 10 years ago, are now strongly represented. Campaigns to recruit nurses have been hampered by poor pay and conditions, particularly at night.

Improvements in nurses' working conditions, often long overdue and well justified, have contributed to staff shortages. Maternity leave, days off for bank holidays and longer holidays have had a significant effect on duty rosters. There appears also to have been a rise in the use of temporary staff. The working week has been reduced to 40 hours and the request of staff representatives that it should be further reduced to 38 hours has been accepted in principle by management.

About 40 per cent of nurses, it is estimated, work part time and there have been significant changes in life style which have had practical effects on ward life. Most ward sisters, for example, used to live in, and like most nurses were unmarried. It was common for extra time to be worked. Today most nurses are married, most live outside the hospital, and although there

But they face the future with some apprehension, mostly because they are small yet maturing organizations in a service dominated by large and old-established unions and professions. There is the risk of conflict with doctors and nurses, rightly jealous of their own status and position. In addition, members can have a say in management on the right allocation of time and equipment, notably when treating handicapped or older patients whose condition can be alleviated but not cured.

Some professions have decided to become independent trade unions, partly to meet closed shop rules. They also wish to make sure their voices are heard as well as those of the TUC-affiliated unions, not that industrial democracy is in the air.

In this sphere the supplementary professions have to balance their duty to promote interests of members with that of maintaining standards and protecting the public. Administrators per-

But an important factor in the troubles of the NHS is growth, in recent years actions and decisions taken for purely political reasons. Public opinion polls shown, for example, that majority of the public would be content to see paybeds to remain in place. But the Health Services Board, concerned with the vast scale of the problem, has to ensure separation of private medicine from the NHS, as a political decision which created divisions and friction on a vast scale.

The Government and trade unions automatically reject any suggestion of additional charges as a "cost shift", although the National Opinion Poll published in the Daily Telegraph showed that 89 per cent of Labour voters would contribute to the cost of a health service if that meant practical services could be improved.

The NHS will not collapse but it is in danger of serious decline in standards unless it can meet the challenge of regaining balance and morale.

The author is Health Services Correspondent, The Times

Doctors

Nurses

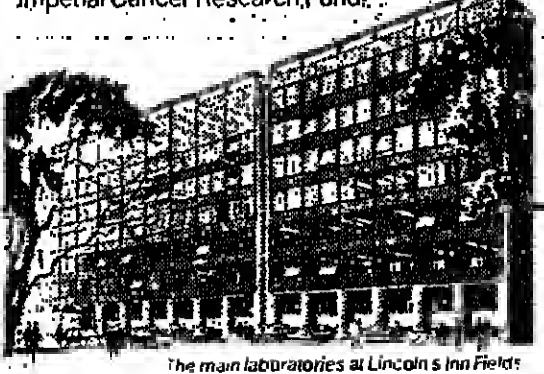
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Although important, the ancillary workers have relatively low pay and morale and many ancillaries which are at the root of high staff turnover and a high sickness rate.

Ancillary workers account for about 15 per cent of the budget in an average hospital.

tal. As an example, in the King's College Hospital district of south London (King's, Dulwich, St Francis, St Giles and Belgrave hospitals), ancillaries account for 1,700 out of a staff of 6,000, and the King's itself, a medium-sized teaching hospital, there are 900 ancillaries in the staff of 3,500.

The porters do a wide variety of jobs. They clean the surgeons' boots, help anaesthetists to position patients, order tins for patients, transport patients, sort and deliver the hospital mail and dispose of rubbish.

The cleaners, a large group, many of them part-time, have the huge task of keeping hospitals especially the clinical areas, spotless. Other ancillaries work in the sterile supply department, sterilising instruments and surgical packs. Others do electrical and plumbing work, and others decorate, do carpentry and running repairs.

Then there are the chefs, cooks, dining-room attendants and waitresses who provide almost a 24-hour service.

Like an army, the hospital service needs its large force of back-up staff to keep its "front-line" people in the field.

Trevor Fishlock

Remoteness at root of strikes

Industrial relations in the National Health Service are appalling, and have been since their worst, since the NHS was reorganised in 1974. Surprisingly there is no formally-recognised collective bargaining machinery below national level, and therefore no adequate procedure for negotiating a way out of a potential stoppage.

Most people have an erroneous impression of NHS staff as inveterate strikers but the truth is (as revealed in a study by the Advisory, Conciliation and Arbitration Service) that most staff will believe that personal interests must be subordinated to those of the patient.

The reason for strikes, apart from the fact that wages for ancillary workers are among the lowest in the country, is the feeling of remoteness between management and staff and lack of adequate local dispute procedure.

Acas, in its submission to the Royal Commission on the NHS, said consideration should be given to a comprehensive overhaul of NHS staff industrial relations policy.

The 1974 reorganisation widened the gap between staff and management because the new multi-tiered structure removed much of the hospital-based authority for decision making and placed it with district managers.

Consequently managers at hospital level have lost some of their status because of the shift of decision making to district managers. Although most of the local managers are in touch with the industrial relations atmosphere they often complain of lack of support or positive reaction from district and area managers.

The proliferation of bargaining bodies does nothing to help an already shaky industrial relations structure. There is constant friction between the 43 bodies with which the National Health Service has to negotiate.

TUC-affiliated bodies often will not sit round the same table as non-TUC bodies, and to add to the problems, there is no love lost between the unions representing the ancillary grades—the transport workers, general and municipal workers, National Union of Public Employees and the Confederation of Health Service Employees.

The latter two are by far the biggest. Membership of the other two is nationally extremely small, although there are pockets of the country where they predominate.

The growth of unions in

Outrage at proposal for Ombudsman's role

It takes a lot to unite the medical profession, which sometimes seems able to offer as many opinions on any matter that affects it as there are individuals in medicine, but eight MPs on a House of Commons select committee seem to have done a pretty good job.

They did it by the simple expedient of recommending that the Ombudsman, who already looks into complaints about maladministration in the National Health Service, should also look at cases involving clinical judgment.

If there is anything sacrosanct to doctors, it is that matters of clinical judgment are their responsibility—and nobody else's. The extent of the medical profession's outrage could be measured at the British Medical Association's annual representative meeting in Cardiff during the summer, when the 600 doctors present voted unanimously against the Ombudsman's remit being extended.

It would seem that for the moment at least there is little chance of the idea being taken up.

Sir Idwal Pugh—the present Ombudsman of Health Service Complaints, to give him his official title—has been scrupulously careful not to offer an opinion on the desirability of the move.

But even he has indicated that he would be wholehearted in co-operation of the doctors, the idea would be workable. The select committee said that legislation to extend the Ombudsman's powers would be counterproductive if those most involved were not prepared to make the system work, and the Department of Health, while expecting to answer the select committee's proposals later this year, seems in no hurry to do so.

But the problems behind the proposal for the Ombudsman to take clinical judgment into his ken have not gone away. Nor will they.

Complaints procedures within the NHS have been a running sore to the service for years. Until the Ombudsman arrived, health authorities were de facto judge and jury in their own cause.

The ad hoc independent inquiries have been set up in the more serious cases have been notable chiefly for their expense, the enormous time they take to answer the problems, and their ability to pillory individuals who in many cases were doing their best in difficult circumstances.

The select committee investigation, which recommended that ad hoc inquiries should cease, if the complainant was not satisfied by an informal local investigation, the matter should go to the Ombudsman. That certainly seems a simpler solution than the proposals of the Davies Committee in 1973, which would have set up investigating panels round the country, issued patients with leaflets on entering hospital, detailing how to complain, and won as much affection from doctors as they are now reserving for the Ombudsman.

But while that might meet complaints where clinical judgment is not involved, it still leaves those where the doctor's work is being questioned. About 17,000 complaints reach the NHS each year—less than 0.3 per cent of in-patient cases treated, although the number is rising. But about half the complaints involve clinical judgment, wholly or in part.

Many of these clearly can be answered by a meeting between the doctor and the patient. But if that does not resolve the issue there is nowhere else to go except the courts, a course open to the very rich and the very poor, but not many others unless the issue is plainly open and shut.

Even the courts are no solution for somebody whose motive in complaining is not so much revenge or compensation, but a feeling that "it shouldn't happen to somebody else". The solution of letting the Ombudsman take a look is highly appealing. But the doctors do not want it and their reasons are many. The courts, they argue, provide them with legal safeguards, in that they believe, would put them at risk of "double jeopardy". The informal investigation might provide ammunition for a complainant to take later to court, and the doctor would be tried twice—the second time, perhaps, proving rather costly.

Sir Idwal ends investigations if he thinks the complainant is about to go to law. But in at least one case already his findings have been used to take a case further. Over and above that, doctors genuinely believe that once clinical judgment was so easily questioned, doctors would practice with an eye on the law the whole time.

The result would be over-

Ambulance crews

to the victim, perhaps shocked, cold, frightened, injured or ill, nothing is more welcome than the sight of the ambulance crew. As well as immediate help their resuscitate offers hope. The ambulance crew ensures that the quality of the help is always improving, and the ambulance, therefore, grows stronger.

An increasing number of ambulance crews are being trained as paramedics. They are given training to enable them to carry out more advanced emergency treatment as the patient is en route from the scene of accident or place of illness to hospital.

The early minutes after an accident are often the vital minutes when paramedic treatment in the ambulance or at the scene is saving lives. Ambulance crews who have had advanced training set up

will have a paramedic in its crew.

London's ambulance service is the largest in the world. Its 2,700 staff provide cover for 10 million people in the Greater London area and answer more than 1,500 emergency calls a day. It has 1,000 vehicles, including more than 400 ambulances, and costs more than £17m a year to run. It has a sixth of the ambulance resources of England and Wales.

Blue-light jobs are, in a sense, the tip of the iceberg. The service carries out about 10,000 non-urgent jobs every day.

Ambulance crew training takes four and a half months. The ambulance service is the fast link between accident or illness and treatment. There is also another link, the emergency bed service formerly run by the King's Fund trust and now operated by the NHS.

This is a 24-hour service for family doctors. If a GP has a patient he thinks should go to hospital, he calls the emergency bed service. It gives details of the patient's condition to the service, how soon it can find a bed in a hospital which can provide the treatment he requires. Usually it is done in a matter of minutes and every effort is made to put the patient in a hospital close to his home.

The bed service summons an ambulance and the patient is soon on his way to a hospital where a bed is waiting and where details of his case are already known. So that staff are ready to treat or operate immediately. The service handles upwards of 600 calls a week and covers Greater London, Watford, Southend and Dartford.

T. F.

Training and manpower

Pertinsoo's Law brought a welcome touch of levity to the evidence submitted by the Royal College of Nursing of the United Kingdom to the Royal Commission on the National Health Service last year. Pointing out that the service absorbed 5.1 per cent of the workforce, the college said: "If the current rate of increase is extrapolated, by AD 2100 the whole workforce will be employed by the who have the National Health Service."

The British Medical Association, in its evidence, also emphasized the dangers of forecasting future manpower on the basis of past trends: "It is possible to demonstrate that given different assumptions concerning the variables in the medical manpower equation any number of different conclusions can be drawn."

Nevertheless, both bodies are urging the need for more data, both to analyse

present manpower and to plan for the future. But one man's datum is another man's paperwork; we live in a world where everyone wants information, as long as it is provided by somebody else.

In the cases of doctors and nurses, quick changes of policy are not easily translated into workers in hospitals, clinics and surgeries. Courses for student doctors last five years, and it can take almost as long to set up a new training scheme for nurses.

At present there is an annual growth rate of 3 per cent in doctors in hospital service and 1 per cent in general practice. The ministry would like to see these figures raised slightly, principally to fill gaps caused by the uneven distribution geographically of general practitioners, and to reduce reliance on doctors from overseas.

However, the Hospital

Junior Staff Committee believes there is a danger of producing a surplus of doctors, with young graduates facing unemployment comparable to that suffered by teachers. Nurses, on the other hand, report a shortage of suitable applicants for training.

In both professions, the manpower equation is complicated by the amount of time spent by trained staff during their careers on taking refresher courses or studying for further qualifications. This seems likely to expand, provided the Government grants the necessary leave and finance.

It is estimated that in a few years, about half the students coming out of medical schools as doctors will be women. Many will be lost to the service while they raise families, and they will probably require further training if they return to it later.

Mr David Rye, director of professional activities at the Royal College of Nursing, said there had been a marked decrease in the number of people coming forward for training, both for three-year and two-year courses. Because of demographic trends, any improvement seemed unlikely. However, the general employment situation had led to a substantial drop in the level of wastage during training.

When looking at manpower, we must take into account the changed workload, particularly in hospital, he said. Because patients spend less time in a hospital bed than in the past, they were more dependent on the nurses' skill during treatment. In addition, earlier discharge of patients meant increased demands on community nursing services.

This last point was emphasized to the college's evidence, to the Royal Commission, calling for the training of more health visitors and home nurses.

P.O.L.

Christopher Thomas
Labour Reporter
The Times

people are beginning to realise that going independent doesn't mean jumping the queue but actually helps shorten it.

6. How much money has BUPA contributed to developing the independent sector's facilities?

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(b) £980,000? ☐
(c) £13 million? ☐

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(a) Decreased by 21%? ☐
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The answer is C. The independent sector is expanding and in this same period 19 new independent hospitals were opened.

2. How many surgical operations does the independent sector perform in a year?

(a) 150,000? ☐
(b) 5,240? ☐
(c) 420? ☐

The annual figure is 150,000 – ranging from minor operations to open-heart surgery.

3. Who provides the greatest number of independent surgical hospital beds in the UK?

(a) BUPA? ☐
(b) Private American organisations? ☐
(c) Nuffield Nursing Homes Trust? ☐

Nuffield Nursing Homes Trust, which provides 1,000 surgical beds, NNHT is a registered charity, established by BUPA in 1957. Today it operates 30 fully equipped hospitals throughout the country.

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THE BUPA HEALTH SERVICE

Medicine torrent flows down British throats

by Pearce Wright

Have we developed an unreasonable expectation about the ability of the medical profession to cure all our ills? There seems reason to believe so from the way antibiotics, vaccines, therapeutic drugs, and devices (artificial pacemakers, hip replacements), and new diagnostic methods and equipment are transferred from research to become adopted rapidly as a routine part of health care.

The success of developments with immunisation and new drugs has encouraged the belief that a pill can be found for every disease. This attitude belies the remarkable research that has discovered within the past 30 years the vast majority of medicines in use. Medicines have progressed more in that period than in the previous 30 centuries, in the opinion of one government adviser.

The casual acceptance of these advances is reflected in another way in the present controversy over whooping cough vaccine. It shows that, whereas a traditional scourge is being brought under control, yesterday's breakthrough can be reviled today for its dangers.

The spectacular reduction in deaths from preventable and treatable infectious diseases coincided with the early years of the National Health Service. The success has meant that a torrent of medicines flows, as Aneurin Bevan forecast, down the throats of the British public. More difficult to predict was the pressure on the administrators of the health service over the steadily rising bill for drugs, running at more than £540m a year.

Whereas the improved treatments have combated many illnesses among infants and the young, little or no improvement has been made to increasing life expectancy for men over 40 years of age. Heart disease and cancer still exact a high toll.

Although encouraging results have been obtained with new chemotherapy treatments using special antitumour agents, a formidable list of illnesses remains that cannot be treated adequately with drugs—including bronchitis, influenza, arthritis and rheumatism, hypertension, schizophrenia and the muscular dystrophies.

Thus there is plenty of scope in which the pharmaceutical industry can turn its skill in applied research, developing new products which have the size of market that leads to high profitability.

The National Health Service not only coincided with the emergence of the large-scale modern drug industry—born out of the success of sulphonamides and antibiotics—but it has also presided over the consequent change

in the art of prescription by the physician. Previously general practitioners had a great familiarity with the cost and efficacy of each compound. In their limited armory of drugs, and many doctors had their own dispensary.

Clearly it would be impossible and futile to expect the same experience with the thousands of preparations which now cascade on to the market: for many are near-identical versions of others, with minor advantages emphasized to make more attractive sales promotion. An adverse result, is that prescription costs can vary greatly between doctors practising in the same area.

An estimate of costs by the Office of Health Economics suggests that £2 goes on to the patient every time a physician prescribes a drug. Various studies also have been done of the money spent on research and development by the pharmaceutical companies. It is evident that their particular brand of applied research and product development is becoming increasingly expensive.

One reason is that new and more effective compounds are increasingly hard to find. About 5,000 new compounds are synthesized each year in the chemistry laboratories of the typical large drug firm. Only a handful exhibit a potentially useful biological activity, and lengthy tests are needed to determine if

any of those 10 or 20 substances might make a therapeutic agent. Publicly the pharmaceutical industry weeps buckets over soaring costs. A recent issue of *Science* magazine suggested that \$54m and about eight years were needed for an American firm to bring one new drug on to the market. This evaluation accounted for total costs of a research programme which carried its proportion of the work on failures.

The question of drug safety regulations is an inevitable minefield, with the industry on one side attributing much of its higher costs to harsh legislation and many experts on the consumer side calling for tighter controls. In Britain the Committee on the Safety of Medicines has brought a semblance of order to the subject, by checking the introduction of new substances at far too fast a rate for adequate testing of possible harmful side effects.

Even with thorough animal and human testing, no drug can ever be completely understood before being introduced into wide clinical use. For this reason the safety committee has devised a scheme for monitoring by doctors of unexpected reactions, to form the basis of an early warning system. The Thalidomide tragedy is perhaps the first incident to come to mind in considering the need for rigorous safety regulations.

But the experience with the pertussis (whooping cough) vaccine may carry more subtle lessons. Although it is known to produce some disturbing and adverse side-effects, including brain damage, convulsions, and a strange unexplained screaming phenomenon in some babies, the prevalence of these reactions is unknown because of unsatisfactory monitoring. Differences between vaccines, uncertainties in diagnosis and other factors.

Even if procedures can be found for effective regulations and continued drug innovation to live harmoniously, a problem remains of the so-called "orphan drugs". This is the question of how to pay for both the research and the product development of compounds for treating rare illnesses, which will never repay the expense of bringing them to market. Of course there is a vast amount of non-industrial research.

Whereas applied research is the natural speciality of industry, really new ideas come from the fundamental research workers in universities, medical schools and research institutes. Some of these projects will assuredly produce possible treatments for rare disorders, leaving the dilemma of who is to do the commercial product development work. In Britain most of the fund-raising research is supported by the Medical Research Council which spends more than £50m a year on investigations including mental handicap, genetic disorders, deafness, eye defects, asthma, cardiovascular diseases, cancer research, allergies, immunology, nutrition, arthritis, infectious diseases, the effects of environmental pollution, and an immense list of work in molecular biology, reproductive biology and other biomedical sciences.

Some of these, like chemotherapy studies of treating tumours, can broaden into large-scale pharmaceutical development.

But the interesting trend, which a growing band of doctors and scientists is trying to encourage, is to combine some cancer, respiratory diseases, cardiovascular disorders, nutritional troubles and other ailments at a community level. This means, for example, devising "preventive medicine" by studying the human environment, rather than accepting treatment of disease in the individual as an inevitable course of action. Only then might the original goal of the National Health Service be attained, in which the costs were not expected to level off after a few years, because the community was expected to become a healthier one.

A suggestion recently in the *Lancet*, that heart transplants would be considered again in Britain, has focused attention on the basic dilemma of any health service allocating limited resources to provide good

health care to the public at reasonable costs.

The problem is particularly acute in medical instrumentation and bioengineering, both expanding, in which the application of advances in electronics, computers and materials technologies have brought a new dimension to the art of healing.

But the immense benefits obtained by the development of heart and lung machines, kidney dialysis units, and artificial hip joints have been bought at great expense. Difficult issues of an ethical nature have also been raised over apparatus that can support life after the brain has stopped working.

The expense involved in new medical technology is only one reason for the continually rising cost of health care. It is nevertheless a sizeable portion of the increase. For instance, the cost of intensive care units for coronary cases has been an immense success, but they also absorb substantial resources in terms of equipment and skilled people.

The most recent of the advanced medical technologies come under scrutiny on cost-benefit arguments as the

revolutionary form of X-ray examination known as computed tomographic scanning (CT scanning). These devices combine radiographic and computer technologies to produce an image of soft tissue that is far in advance in quality of that available with conventional X-ray machines.

CT scanners and EMI, almost synonymous, because of the latter's pioneering work in this sector. The company has supplied most of the scanners in the world, more than 550 installed on order in the United States, 160 in Japan and 5 in Britain. Initially, scanners were introduced to examine the brain, but they now can make an analysis of any section of the body to identify an object down to a few millimetres in diameter.

Thus their role in screening programmes can be a great improvement, together with systems for examining cervical smears and for ultrasound or thermographic mammography. But doubts have arisen about the use of these instruments because of the large capital outlay needed for a scanner. It could be up to £250,000.

The author is Science Editor, *The Times*.



A human kidney in mid-transplant at Guy's Hospital, London. Photograph by Robin Laurance

Aim is to stretch the three score and ten

by Dr. Tony Smith

In Britain old age is the certified cause of death of fewer than 5,000 people a year—less than 1 per cent of the total mortality. Most people die of heart disease, cancer or stroke; and medical science is unlikely to change that. What has been achieved so far this century is a reduction in deaths in childhood and middle age; and the realistic target of medical research is the preservation of good health until the eighth decade for as many people as possible.

Technological medicine can claim some credit for the better health and better life expectancy of the present generation when compared with that of its grandparents. Tuberculosis and other major infectious diseases have been almost eliminated by a combination of vaccination and antibiotics—and by the better natural resistance to infection that goes with improved nutrition.

Advances in anaesthesia and surgery have transformed the chances of recovery for anyone accidentally injured; "spare part" surgery allows replacement of worn-out heart valves and joints; and transplantation provides the possibility of near-normal health for sufferers from kidney disease. Deafness and failing vision can now often be corrected. The mortality formerly associated with childbirth is now almost nil, and far fewer babies die in the critical first year of life.

Yet with all these achievements far too many people fail to reach their natural life span of 70 to 80 years. The causes of the foremost killing diseases of middle life are not mysterious: overeating, too little exercise, tobacco and alcohol are big contributory factors. Deaths from heart disease, cancer of the lungs, bladder and other organs, bronchitis and stroke.

Important, as these environmental factors are, there are still many diseases whose cause remains problematical. Most of these chronic diseases, such as those of the breast, stomach and intestines remain unexplained in spite of vast efforts of research and many theories. Little certain is known of the primary causes of many chronic diseases including diabetes, multiple sclerosis, and even the process of aging itself.

CHILD CARE

Much of the emphasis in modern child care is on prevention. Better understanding of the defects underlying congenital abnormalities such as Down's syndrome (mongolism) and of familial diseases such as thalassaemia has combined with new techniques for taking samples of blood and amniotic fluid from the developing foetus to make possible their diagnosis early enough in pregnancy for termination to be feasible.

When there is a family history of inherited disease genetic counselling can often give practical guidance on the risks of the birth of an abnormal child. Later in pregnancy and during labour repeated monitoring gives the obstetrician early warning of any abnormality so that delivery may if necessary be hastened by induction, or the baby may be delivered by Caesarian section. With these advances the mortality of newborn babies has been lowered progressively for the whole of this century, though British figures still lag behind those of many other European countries.

During infancy and the early school years again prevention is given priority. Vaccination against polio, diphtheria, tetanus, measles and rubella has reduced their incidence to low levels; sadly, however, recent uncracked adverse

publicity about whooping cough vaccination has led to a drop in the number of infants being immunized.

The recent outbreak of the paralytic poliomyelitis in the Netherlands shows how false the sense of security given by the apparent disappearance of a disease. Each generation of non-immunized children is born vulnerable to these diseases, and protection can be given by full vaccination. In many parts of the country there are no adequate arrangements for making sure that unvaccinated children are detected and offered treatment.

The report by Professor Court's committee of inquiry into child health spent out in detail the defects of our present system, but its recommendations have mostly been shelved by the Department of Health and Social Security. In particular, too little is done to identify and treat behavioural and physical disorders among children in deprived inner city areas. Even where problems (such as delay in reading) are identified early enough treatment is often not available.

CARDIOVASCULAR DISEASE

The patients attending a cardiologist's hospital clinic today are very different from those seen 30 years ago. Then the dominant disorder was rheumatic heart disease with its crippling effect on the heart valves. Nowadays rheumatic fever has become rare and valvular disease is correctable by surgery. The children attending are those born with heart defects. One in every hundred children has congenital heart disease; a few are so severely affected that they cannot survive and others have minor defects that cause them no symptoms, but about five in every thousand babies will need surgical repair of their hearts if they are to grow up healthy.

Coronary heart disease is now dominant in middle age. It is by far the most common cause of death in men aged between 40 and 60, and it is becoming more frequent in women. Despite all the research efforts the mortality from coronary thrombosis remains high, mainly because most deaths occur before medical treatment can be given. At present efforts are being concentrated on prevention—persuading adults of all ages to take more exercise, eat less fat and carbohydrates, and stop smoking—and on the treatment of survivors of heart attacks by drugs and in some cases surgery to bypass the blocked coronary arteries.

The second major cardiovascular problem is hypertension—raised blood pressure. Someone whose blood pressure is higher than normal may have no symptoms of it but he or she is at a substantially increased risk of stroke, heart disease or kidney failure. In contrast to a few years ago, the drug treatment of raised blood pressure now causes few side effects, and one of the medical priorities in the immediate future should be a campaign to detect more of the millions of men and women with unrecognized raised blood pressure.

CANCER

Cancer experts are now generally agreed that 80 per cent of human cancers are attributable to environmental carcinogens—chemicals which initiate the malignant change in a cell's make-up that leads to the growth and eventual spread of a cancer. The best lower carcinogen is tobacco smoke, but there is equally convincing evidence that alcohol, asbestos, polychlorinated biphenyls, and coal tar can cause cancer in susceptible individuals.

Cancer is more common in people who are overweight, and there is growing evidence that diet may be one factor in several of the common cancers of the digestive tract. Clearly, there

is a vast potential for prevention in the control of cancer.

Meanwhile, the prospects for cure are improving after several decades of near-stagnation—in cancer. The way ahead was shown in a series of research studies in Britain and the United States on childhood leukaemia. Twenty years ago the diagnosis of leukaemia was a death sentence; now there is an almost even chance of cure from a combination of drugs and radiotherapy. Multiple drug treatment is being combined with surgical removal of the main tumour in a whole range of common cancers (breast, stomach, testis, prostate, bone, and others) with promising results; and new techniques have reduced the unpleasant side effects of radiotherapy. At the other end of the spectrum more attention is being paid to the control of benign and suffering in patients dying of cancer (and other progressive disorders).

CHRONIC DISEASES

Invalidism in early adult life is often the result of a chronic disease affecting only one organ or vital system—arthritis, diabetes, asthma, skin disease, and kidney disease. The causes of most of these chronic disorders remain enigmatic, but some at least are due to a malfunction of the body's immune defence systems. Antibodies (whose normal function is to destroy microorganisms and other external threats) are formed against vital structures within the body, leading to inflammation and eventual destructive scarring.

This autoimmune process can be slowed by drug treatment, but no specific cures are yet available. Even so, symptoms can often be relieved by "high technology medicine", extending from replacement of damaged joints by plastic or metal substitutes to transplantation of healthy kidneys or livers to replace those destroyed by disease.

Another welcome recent initiative is the growth of self-help groups formed by patients with a specific disease (such as psoriasis or multiple sclerosis) who can exchange useful practical information, arrange to meet specialists for question-and-answer sessions, and even initiate and finance research.

Nevertheless, the long-term care of patients who

are severely disabled leaves much to be desired. Some local authorities have made big efforts to provide their handicapped citizens with the modifications to their houses that can transform their lifestyle; others have remained indifferent. There are still far too few residential units for the young chronic sick, many of whom are still put into geriatric units for lack of any alternative.

GERIATRIC CARE

In common with other technically advanced countries, Britain has an aging population. Thirty years ago the over-65s made up only 10 per cent of the population; now they form 15 per cent. As the body ages, every organ and system slows down and loses its reserve capacity, so that infections and injuries that would be trivial for a young adult may be life-threatening for a person aged 70. However, in any one individual different organs age at different paces, and when only, for example, the kidneys or the heart is failing, effective treatment is often possible.

In East Anglia, where people live longer than anywhere else in Britain, it is common to find a surgical hospital ward filled with 70-year-olds recovering from operations that should give them another 10 years or more of useful life. Most of the elderly population is fit and active and needs no featherbedding; but a substantial minority does develop chronic disorders which make it dependent upon professional care.

The main medical problems of old age are dementia, stroke, and mobility disorders. Dementia—loss of the intellectual faculties—occurs when the brain ages faster than the rest of the body. It affects about 10 per cent of people aged 65, rising to 20 per cent at the age of 80. The condition is progressive and at present irreversible, leading to loss of memory and impaired speech, and eventually the patient becomes unable to look after himself and is dependent on nursing care.

The Medical Research Council is trying to find out more about the cause of dementia, but for the foreseeable future it threatens a growing burden on the National Health Service. By the mid-1980s, the number of people over 70 with dementia in need of care

will be more than 100,000. The unanswered question is whether society can continue even to attempt to provide the best that medicine can offer to the whole population. As more and more medical problems are found to have expensive solutions (such as dialysis/transplants for kidney disease and bypass surgery for coronary disease), we shall be forced either to increase spending towards 10 per cent of the nation's wealth or to introduce some form of rationing by price, by age or some other criteria of merit.

The author is Medical Correspondent, *The Times*.

PRIORITIES

The growing numbers of old people in need of either specific treatment (such as replacement of an arthritic hip joint) or restoring mobility to someone confined to his own house) or of some form of residential care will inevitably demand a large proportion of NHS resources. Yet the demands of the young and middle-aged will also continue to grow; for almost every disability is remediable to some extent by high technology medicine, whose innovations have affected treatment of common conditions, such as cancer and deafness, as much as the more dramatic cases of heart, liver or kidney failure.

Every western country is facing the prospect of an ever-increasing share of its national wealth being spent on medical care. At present health planners are pinning their faith on increased emphasis on prevention; but a healthier population will develop its illnesses, even if they are postponed for 10 years or more.

The unanswered question is whether society can continue even to attempt to provide the best that medicine can offer to the whole population. As more and more medical problems are found to have expensive solutions (such as dialysis/transplants for kidney disease and bypass surgery for coronary disease), we shall be forced either to increase spending towards 10 per cent of the nation's wealth or to introduce some form of rationing by price, by age or some other criteria of merit.

The author is Medical Correspondent, *The Times*.

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THREE FAULTS FOR REFUSING

Mr Callaghan's decision not to have a general election this autumn will have taken most people very much by surprise. Such an expectation had built up that they will have turned to television sets yesterday evening principally to see which late he had selected. Would it be late September or early October? That expectation had developed with at least the acquiescence of Downing Street. Had the Prime Minister wished to cool the speculation during the summer his representatives could probably have done so without too much difficulty. There is no evidence that they made the attempt.

This sudden dashing of expectations has its agreeably comic side, but it must naturally strengthen the assumption that he has refrained from going to the country now because he fears that the result would be a defeat. The opinion polls showed only that the outcome would have been very uncertain. By holding on he may hope to gain the benefit of the new electoral register that comes into force in February (as Labour are less adept in garnering the postal votes it is to their advantage to have as fresh a register as possible) and to be helped by any improvement in the public mood in the meanwhile. At the worst, the Government will enjoy about another six months in office.

But such evidence as is now available does not suggest that the public mood will improve. The economic indicators are at least as favourable now as they are likely to be then. Inflation

is expected to rise in the coming months and there will be all the uncertainties of another round of wage bargaining. If that gets seriously out of hand Labour will have lost their most persuasive argument: that they are better able to control inflation because they know how to get on with the unions.

There is also the element of accident against which no government can be proof. But whereas for most governments that is simply one of the risks of life, it becomes a more serious matter for an administration that seems to be clinging on to office beyond general expectation. Every time something goes wrong, whether it is really the fault of the Government or not, there is the danger that it will strengthen the impression of an administration that is tired and has lost its touch.

There could also be some benefit to the Opposition. The run-up to the expected announcement has provided something like a dress rehearsal for the preparations for their campaign. There is now a period of some months to put right some of the things that did not look too good; in particular the Conservatives need to make sure that their propaganda genuinely follows their policy—not the case with the last two party political broadcasts.

The Prime Minister is running another risk which is more uncertain: that the Government will be defeated in the House of Commons on a vote of confidence and be forced to go to the polls in humiliating circumstances at a

time not of their choosing. After the end of the Lib-Lab pact and the Liberals' declared intention of voting against the Queen's Speech at the beginning of the next session, it has been widely assumed that the Government face almost certain defeat on this occasion.

But it may not be as simple as that. There is a danger of all assessments being too much influenced by the experience of the pact with the Liberals. Such a pact guarantees a safe passage to a minority government: but the absence of such an arrangement does not assure the Government's defeat. Mr Callaghan can proceed with the Queen's Speech, without securing any deals, and simply hope that he will be saved because the Scottish and Welsh Nationalists—who between them have more votes than the Liberals in the present House—do not want a general election before the devolution referendum. These will presumably now be held before the end of the year.

But even if this calculation is correct, the Prime Minister will still have condemned the country to probably another half-year of pre-election tension. Whichever way one would like the result to go when the time comes, that cannot be in the national interest. Many sectors of British life, especially the business community, will now be operating for some six months in an atmosphere of political anti-climax. Decisions will be postponed, initiatives delayed to suit the convenience of politicians.

THE GRAVE CRISIS IN IRAN

It is already abundantly clear that the change of government in Iran, less than a fortnight ago, has brought no solution to the profound political crisis through which that country is passing. Yesterday over a hundred thousand people, in the capital alone, took part in a mass demonstration directed expressly against the regime and expressly forbidden by it. Indeed figures of "several hundred thousand" have been given, and not the least novel aspect of the situation is that they were given by newspapers published in Teheran itself. One effect of the change of government has clearly been a relaxation of press censorship. But the timing and manner of this, as of other gestures of liberalization and concessions to religious feeling (such as the closure of casinos and the restitution of the Islamic calendar), make it a sign of weakness rather than of strength.

The Shah, who for many years had appeared as firmly in control of his country as any ruler in the world, now sees his authority crumble. Last month he celebrated the twenty-fifth anniversary of his triumphant return from exile after the overthrow of Dr Mossadegh. Now he must be haunted by the fear that the film of those events is being rerun backwards. Last week, when welcoming Chairman Hua Kuo-feng, he had to cancel the planned motorcade through the streets and cross his capital by helicopter. For the moment the streets no longer belong to him, but to his exiled adversary, Ayatollah Khomeini, without whose support a solution to the crisis scarcely seems possible. And the Ayatollah's demand is for the depuration of the Shah and the abolition of the monarchy.

Western governments can only view these events with great unease. Iran is a country of enormous strategic and economic importance which for the past twenty-five years has belonged firmly to the Western camp. It

is true that the Shah in 1973-74 played a leading part in forcing the fourfold rise in oil prices, which was a severe blow to Western interests. But he used the revenue thus raised to purchase weapons, machinery, technology, and consumer goods for his country from the West; and to force the pace of an economic development which gave ample scope to Western investment; and while he demanded a high price for oil, he never threatened to cut off the supply. In military terms Iran has been a loyal member of CENTO and has deliberately taken on itself the succession to Britain as guarantor of stability and sister of Soviet expansion in the Gulf and the Indian Ocean.

Western governments and businesses have taken full advantage of the opportunities offered them by the Shah, and are uneasily conscious that in so doing they have associated themselves with a regime that could be extremely ruthless in handling its opponents. Iran has been regularly cited by Amnesty International as one of the worst offenders in the matter of political imprisonment and torture, and has maintained what after the KGB must be the most widely feared secret police in the world.

Those who worry about repression have generally consoled themselves with the thought that the victims were confined in the main to a left-wing intellectual fringe, and that the mass of the people were grateful to the Shah for his efforts in developing the country, making it more prosperous, and breaking the power of the feudal landlords. But it is now clear that dislike, even hatred, for his regime go very much wider than that. When strict Muslim countries, is not Marxism but religious feeling. Indeed many Iranians would bracket the Shah and the Communists together, as people ready to turn Iran into a satellite of one of the superpowers, to impose on it an alien culture, ideology, and set

of values, and thus to destroy its national and cultural identity.

The Shah has always sought to present himself as steering a reasonable course between two extremes: red revolution and black reaction; and he has tried to discredit both by accusing them of collaborating with each other. The truth appears considerably more complex. The Marxists—whether orthodox or Soviet communists or the more actively violent groups—are indeed ready to exploit almost any source of discontent with the regime. But the religious leaders in the Iranian Liberation Movement and the heirs of Mossadegh grouped in the National Front, have consistently refused to collaborate with Marxists.

By contrast it is clear that there has been an increasing convergence between these two groups—the conservative religious and the liberal nationalist opposition. Both object strongly to what they see as Iran's subordination to the West, and especially to the United States, and both have been the victims of the regime's repressive machinery. Thus the religious leaders have become progressively more liberal and constitutional in their demands, while the nationalists have shown more sympathy for religious grievances against certain symbols of Western "corruption" such as cinemas and casinos. The female student who insists on wearing a veil, or the male student piously telling his rosary, can often be categorized as conservative when they express their political feelings.

Such an opposition inevitably lacks coherence when it comes to proposing a positive alternative to the status quo. But the Shah's efforts to exploit this fact have been backfiring, serving only to emphasize the extent and diversity of an opposition still united by hostility to himself. It is not easy to see how he can now resolve the crisis. But nor can the West view his failure to do so with any but the most profound concern.

Fungus disease in wheat

From Dr Robert Wigglesworth
Sir, The article from your Agricultural Correspondent, Hugh Clayton, in August 18 describes an alarming situation of increasing fungus disease of wheat called "Take All". Some years ago there was some work in New Zealand which suggested that the presence of high nitrate concentrations in soils inhibited a complex soil cycle called the "Carbide Cycle" which was associated with an increase in fungus in the soil.

May it not be that the continuing high applications of inorganic nitrate to all the soil of this country could be associated with the present increase, extent and virulence of fungus diseases such as "Take All" and Dutch Elm Disease, etc? It would be interesting to know if any other work has confirmed the findings from New Zealand.

Yours faithfully,
ROBERT WIGGLESWORTH
Senior Consultant Paediatrician,
Kettering and District
General Hospital,
Rothwell Road,
Kettering, Northamptonshire.

Citizen's band radio

From Lord Young of Dartington
Sir, It was sad indeed to read in your columns (September 2) that the Home Secretary has written to the Duke of Kent (Chairman of the National Electronics Council) to say he is unconvinced by the case for Citizens' Band (CB) radio. I only hope he will change his mind and show that he does not, like so many of his predecessors, consider that in Britain the state does not belong to the people but the government.

The outstanding advantage of CB radio is that it enables anyone with a low-cost radio transceiver to call over the air for help in an emergency. The set can be used by anyone who is licensed and sick people in a way that telephones cannot, nor any of the other alarm systems designed for householders. In the United States, where CB radio has flourished to the satisfaction of consumers and industry alike, Channel 9, as it is called, is reserved just for such emergencies. So it could be in Britain, with a consequent widespread relief of individual anxiety. The great merit of CB is that it helps people to "bond together" to help each other. Faithfully,

YOUNG OF DARTINGTON,
Chairman, Mutual Aid Centre Ltd.,
19 Victoria Park Square, E2,
September 4.

Farm workers' wages

From Mr Robert Saunders
Sir, Mr Tom Listerick (August 30) must not be allowed to get away with the suggestion that farm workers' wages are low because they have a weak union. Those of us who serve on the Agricultural Wages Board, regardless of which interest we represent, would like to see the industry has got the ability to pay them. That the industry has not got this ability is due to the action of the Government, which Mr Listerick supports, in manipulating the green pound in order to keep the returns to British agriculture well below those received by the countries parts elsewhere in the EEC.

ment thinking and policy, either by this Government or a successor, can enable British farmers to pay their workers the wages they deserve and which we would wish to pay. Then they would become customers for a greater volume of industrial products that could be produced by some of those currently unemployed.

Yours faithfully,
ROBERT SAUNDERS,
Priar Mayne Farm,
Broadmayne,
Dorchester.

Clothed buildings

From Mr S. E. Alsop
Sir, Could I second Mr McKean's suggestion (article, August 28) that buildings should be clothed—especially with virginia creeper. One argument against it is that it rots the brickwork but in 55 years of brickmaking experience I have never seen a brick adversely affected by creeper. "A home for birds and insects" says Mr McKean. And it is also a source of food for the honey bee, seven of the eight walls of our T-shaped house are covered and every year during the last week of August they are a-buzz with foraging honey bees.

I would estimate that in a completely built-up area there are one acre of vertical walls per 10 acres of ground and one stock of bees per 100 acres would gather a sizeable crop from this source. Yours faithfully,
S. E. ALSOP,
Cherry Orchard Cottage,
Whittemoor Road,
Kenilworth,
Warwickshire.

Trade unions and productivity

From Mr Allan Cottrell

Sir, I have been following the argument in your pages with interest. It raises a crucial question for British society which will have to be pursued further. It is undeniable that union strength at the point of production—the phenomenon of "negative workers' control"—has been an important factor in holding back the growth of productivity in this country, but what is to be done about it?

Formally, there are two alternatives. Either the workers' resistance in the factories is somehow smashed or demobilised, or else the strength of that movement is somehow channelled into a "positive" control, is the workers' organisations take initiatives in the restructuring of industry and the improvement of productivity. (And the quality of the product). Let us consider these alternatives for a moment. The first alternative, the dismantling of the workers' ability to resist "rationalisation", could theoretically be achieved in one of two ways.

(i) The government and employers could combine in an all-out attack on the unions. Leaving aside the desirability of such a move, and the consequences for democracy, that seems unlikely to be successful (cf the recent Tory study).

(ii) The workers could be brought to realise that (in your words) "unions cause poverty". They would give up their unionism out of self-interest. As Mr Radice observed (September 5) this is fantasy. Workers won't surrender even their "negative" control over production for a vague promise of prosperity in years to come, if no other conditions are also fulfilled.

This leaves us with the second option: the difficult task of fostering a new kind of initiative on the part of the workers. As you rightly argue in response to Mr Radice, if industrial democracy means only the institutionalisation of the workers' existing ability to resist management, then it will solve nobody's problem. We are talking then of a new kind of industrial democracy, in which workers will have a genuine stake in industrial development. I say "genuine", because workers are rightly wary of participation schemes which confer responsibility without real power.

The necessary conditions for this new industrial democracy would include important changes in company law and property relations; the conversion of equity shares into debentures and the abolition of enterprise shares; the conversion of enterprises into cooperatives owned by their employees. Workers would have to be trained in management, and to make longer term decisions for greater mutual benefit (as do many of the participating elements of industry in the countries mentioned in the last paragraph of your leader).

The conclusion to be drawn from the facts highlighted by your leader must therefore be in accord with that of Mr Radice (Letters, September 5). We must have more industrial democracy, when trade union power and responsibility can add to the struggle to rebuild rather than destroy our failing industries, to improve the future standard of living of all in a secure and more than ephemeral way.

Yours sincerely,
COLIN A. MAYNELL,
28 FREDERICK STREET,
LEAMINGTON SPA,
Warwickshire,
September 5.

The Moscow Olympics

From Mr Nicholas Elliott

Sir, We must, regrettably, accept that politics are entangled in sport. It is not, I think, a matter of principle, to take part in the opening ceremony and procession in front of Hitler. He was, I believe, the only athlete in either the winter or summer Games to show such strength of mind as to refuse to compete in the Iron Curtain, if their consciences permit them to compete in Moscow, will at least have the integrity to boycott the opening ceremony which anyway has no sporting significance?

Yours faithfully,
NICHOLAS ELLIOTT,
White's,
St James's, SW1,
August 24.

Decline of the village

From the Reverend Giles Hunt

Sir, Your correspondent Mr E. F. Cartwright (August 31) is right in pointing out that the village church used to be a community centre of sorts, well as a place of worship, and right to point out that churches could again be used more than they often are as a focus for village activities. But his history is a bit shaky. The practice of consecrating churchyards (something that has a legal as well as religious significance) was not started by high church Victorians; and if he believes that churchyards were normally used in the middle ages for common grazing, how does he explain the enclosures that ordered yews (vital for the longbow and thus for national defence, but deadly poison for sheep and cattle) should be grown in churchyards?

This is not merely a historical quibble. It was because churches and churchyards were recognised as "hallowed ground" that their use by the community worked so well. One of the worst problems with community centres and village halls is that because they are felt to belong to nobody, or because there is no respect for property, users cause damage: thus (for instance) the village hall committee have to ban the youth club and one other village activity disappears. Greater use of churches for village activities is a good and important idea, but it is not a panacea and needs to be carefully administered. Yours faithfully,
GILES HUNT,
Barwick Village,
Roxton,
Hertfordshire,
August 31.

From Mr G. C. S. Curtis
Sir, Concern has been expressed by your correspondents that the village has become a dormitory. Was it ever anything else? Since the elimination of the weaver only the

Fire regulations in historic buildings

From Lord James of Rusholme

Sir, Over the past few years my Commission has become increasingly concerned about the inflexibility with which fire regulations can be pressed by fire officers and in consequence enforced by local authorities: we are particularly concerned about the effects of this practice on historic buildings.

This does not mean that we are unaware of the dangers of fire, nor unimpressed about the fate of the buildings and their occupants. But the loss of life by fire is an emotive matter, and the aim of regulations appears to be that no one shall ever die as a result of fire. This is, of course, an admirable aim, but it demands levels of precaution quite out of proportion with those taken against other risks. An attempt to achieve even remotely comparable safety levels in the field of traffic would put an end to our present transport systems. Can one imagine a system of precautions which would make it impossible to fall from the platform of a crowded London station (though in fact this happens only rarely); to fall down the stairs of a swaying London bus; to step from a pavement under passing traffic?

This rigorous interpretation of new fire regulations can call for extensive structural alterations even in recently erected buildings, but in many historic buildings (which of course are not simply the great country houses but many university buildings, museums, art galleries and libraries) the results cannot only be prohibitively costly but appallingly destructive of the historic and visual qualities of the building. Such regulations can make it necessary to seal off staircases with small lobbies, to chop up fire architectural details with fire proof divisions and to install auxiliary fire stairs.

This means that owners faced with such destruction and expenditure will have no choice but to close their buildings to the public. It is of interest to note that in the many historic buildings of the University of Oxford which have

been occupied by thousands of students for hundreds of years only one death by fire appears to have been recorded in the last 400 years. Moreover in all pre-1800 houses in Britain other than private houses, in 1974, which we are given to understand was statistically a typical year, only two deaths from fire were recorded, and one of these was the result of a bomb incident.

It seems to the Commission therefore that the risk taken by the public in using such buildings is very small indeed; it is in fact negligible when compared with the risks taken on the road to get to them. We therefore suggest that clearly displayed notices warning the public of the risks they might be taking could be considered an adequate precaution. We also feel strongly that some system of appeal should be instituted which will make it possible for building owners to take the problem to a higher authority than that at which decisions are at present taken.

Yours faithfully,
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2 Carlton Gardens, SW1,
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Both the person displaced within the country and the person who flees from it are victims of the war. The needs of the camps of refugees in Botswana, Mozambique and Zambia are as pressing as those within the country. One of my colleagues saw this for herself when she recently visited a camp for 5,000 young refugee girls in Zambia. To respond to their need we have made a response, too. Christian Aid, as the instrument of the British Churches, will continue to respond to needs within the country and outside Rhodesia/Zimbabwe.

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If this was done, the true cost of the Ordnance Survey's main contribution to the nation would then be seen to be borne by those who are benefiting from it and also making it necessary—and the prices of its products could then be adjusted, not by market and self-defeating commercial considerations, but so as to ensure their maximum use to the benefit of us all. Yours faithfully,
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All man made features appearing on these maps are owned by some-

The Constables
From Mr John Kenworthy-Browne
Sir, The picture in question, *Neon Stoke-by-Nayland*, is by any standard a beautiful work. How then can we tell Mr Howard (letter, September 4) that it does matter who painted it? As regards its monetary value, many people will share his impression, but we know that the art market is not governed only by aesthetic values.

In one sense its authenticity is important like that of a relic or memoir. This, however, is not the principal issue. The business of an art historian is not to put labels on pictures, but to investigate the processes of creation of works of art. Here is the revelation of a little-known painter, and not only that, but a work of great quality. It will need to be reassessed and placed in a quite different context. As a result of the art historian's work, Mr Howard may, (if he passes) gain a much greater insight into the work than he will have merely by gazing at it idly.

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Approval for Yorkshire canal widening

By Peter Hill
Industrial Correspondent

Approval for a £10m development scheme on the canal system in south Yorkshire is expected to be announced by the Department of the Environment today.

The scheme, which has been the subject of protracted and often bitter exchanges between its sponsor, the British Waterways Board and Whitehall for over 10 years, will mark the first major waterway improvement scheme in Britain for more than 70 years.

Under the scheme, the Sheffield and South Yorkshire Navigation (SSYN) will be widened and deepened along a 35-kilometre stretch between Doncaster and Rotherham. This will enable barges of up to 400 tons to penetrate into the industrial heartland of south Yorkshire, with barges of up to 700 tons able to navigate as far as Mexborough.

At present navigation is limited in barges of up to 90 tons as far as Doncaster.

When first mooted in 1966-67 the scheme was costed at about £2m. The latest scheme is a modified version of the original plan, and the Department of the Environment will submit about one-third of the funds required. In addition, the European Regional Development Fund is expected to provide a further one-third of the cost in the form of an interest-free grant. The balance will be met by the Waterways Board from borrowings.

Official 1978 trade forecast put export growth well below target

By Maurice Corina
Industrial Editor

The Chancellor's hopes of maintaining last year's strong rise in the volume of exports in the second half of 1978 are well below target, according to a survey of major exporters.

Forecasters released yesterday by the Department of Trade, and based on Whitehall's regular survey of major exporters, indicate that export volume in 1978 will advance by around 4 per cent over 1977, compared with the rise of 8.1 per cent recorded last year.

This figure emerges from parallel forecasts that the volume of total exports is expected to show an increase

of around 4 per cent on a seasonally adjusted basis between the two halves of 1978. In the first quarter of 1979 some slowing down in even this rate of growth is predicted.

In his Budget forecast, the Chancellor stressed that future trends were difficult to judge, but the Treasury was looking for growth in the volume of exports ranging between 5.5 per cent and 7 per cent.

Although the Department of Trade's regular survey of export prospects has to be treated with caution, it has been proving a fairly reliable indicator to trends. Some 61 major exporters accounting for about one-third of Britain's

total exports provided data for the latest forecasts during July and August.

Other main features of the latest results are that big companies expect the volume of exports in the second half of 1978 to be around 14 per cent higher than a year earlier.

These look good but must be seen in the light of the comparatively low figures in the fourth quarter of 1977 and the first quarter of this year.

The latest figures of price increases compared with a year earlier for the large exporters are about 3 per cent in the second and third quarters of this year, followed by forecasts of 6 per cent and 8 per cent for the subsequent two quarters.

Farmers seek more cash from processors

By Hugh Clayton

Farmers threatened yesterday to reduce vegetable sales unless their prices were paid increases by tinned and frozen food companies.

Mr Kenneth James, chief executive of the Processed Vegetable Growers' Association, said that 23 per cent would be needed to cover all increases since the last rise in 1976. The best-selling processed vegetables in Britain, farmers received no increase for the 1978 crop after the vegetable glut of 1977 which cut sales of processed vegetables early this year.

Mr James said that this year's crop had been unusually long and expensive for peas. It had lasted 58 days instead of the usual period of about 42.

"Farmers expect to take

weather risks. It seems that for 1978 they were persuaded to take an undue share of the market risk also."

The 1978 pea harvest had left a big question mark in the minds of many growers over the future of the pea crop.

"Growers all over the country are already considering whether peas can hold their place in competition with other break crops."

There was scope for processors to raise prices. Frozen peas, for which farmers were paid a bulk price equivalent to about 6p a pound, had been raised in shops this week by 4p. They now sold for 35p a pound or more. Mr James said that the association, which represents more than 1,500 vegetable growers, had been told by members to seek "substantially increased prices".

Steel unions delay vote on Bilston closure

Steel union leaders will not consider any industrial action over the planned closure of the Bilston British Steel Corporation works in the west Midlands at least until after a meeting with top management next week.

The TUC steel industry committee is likely to reconvene, together with employee representatives from Bilston, a meeting of the joint planning committee on September 13.

During discussions yesterday shop stewards demanded a meeting with Mr Eric Varley, Secretary of State for Industry.

New capital issues tumble in August

Statistics compiled by Midland Bank show that the amount of "new money" raised in the United Kingdom by the issue of marketable securities in August was £64.8m, a considerable drop on the July total of £193.3m. In the first eight months of this year, £604.6m has been raised, compared with £843.8m in the same period of 1977.

Weather slows Travis & Arnold

Poor weather made for a slow start to the year at Northampton-based builders' merchant, Travis & Arnold. However, pre-tax profits for the six months to June 30, are up nine per cent to £2.17m, on sales up from £23.8m to £30.6m.

Texas Instruments claims 2-year micro-circuits lead

By Kenneth Owen
Technology Correspondent

Texas Instruments, the world's largest manufacturer of semiconductor integrated circuits, today claimed that it would be two years ahead of Britain's state-backed Immos company in volume production of a key type of high-capacity computer memory micro-circuit for the 1980s.

Confirming the reported fact that TI has developed a 64-kilobit random-access memory (64K RAM), which represents a fourfold increase in capacity compared with present random-access memory circuits, the

company said in a statement that volume production would begin in the first quarter of next year.

Immos, the National Enterprise Board's recently formed subsidiary, expects to have its own version of the circuit in full production by 1981.

At a press conference preceding the announcement, Mr Robb Wilmot, managing director of the American-owned multinational's United Kingdom subsidiary, said the company expected this new circuit to be the first of its kind in the world, and to become an "industry standard".

Strikes threaten Renault and Volvo suppliers

A strike may threaten spare parts supplies to Renault car owners in Britain. The strikers, workers at the French group's parts distribution centre at Rose Kiln Lane, Reading, Berkshire, walked out on Wednesday when two colleagues were suspended.

The dispute started over a claim for a £1 a week productivity bonus. The men are members of the Transport and General Workers' Union. Their shop steward, Mr Richard Harrison, said members had blacked all non-union transport.

In brief

Rising costs undermine carpet profits

Britain's struggling carpet industry has not been able to raise prices sufficiently to cover substantial increases in the cost of raw materials, general overheads and labour, according to a report published yesterday.

The latest Business Ratio survey of carpet manufacturers and distributors by Inter Company Comparisons shows that the average annual wage for workers in carpet manufacturing rose from £1,860 to £3,113 in the three years up to April last year, an increase of 67 per cent.

Yet in the same period sales per employee rose by only 8 per cent and profits per employee by about 10 per cent.

Distributors fared better. Average sales increased by 47 per cent while sales per employee rose by 66 per cent and profits by 94 per cent.

The report says highly competitive conditions combined with excess capacity are constraining "prospects are improving, albeit slowly, and it may take some time to return to the profitability seen in 1973-74, the last good period for the industry."

The survey covering 54 manufacturers and 45 distributors showed most companies have suffered from overcapacity, particularly in printed tufted carpets.

Quotas set on trouser imports

Formal restrictions on rapidly rising imports of women's trousers from the Philippines have been imposed by the Department of Trade. The quotas for this year have been set at 172,000 pairs.

The bilateral textile agreement negotiated by the European Commission with the Philippines last autumn did not include a quota for exports to the United Kingdom of women's trousers. But after representations from the British Government, the commission sought a further level of restraint from the Philippines. Import licences will be revoked today.

Offshore safety rules

An independent committee has been set up under Dr J. H. Burgoyne, a consulting engineer, to review offshore oil safety regulations. Mr Anthony Wedgwood Benn, the Secretary of State for Energy, has instructed the committee to consider the effectiveness of the department's regulations governing the development of oil and gas offshore.

Ninian pay dispute

Nearly 500 men have asked to be taken off Chevron's central platform in the Ninian oilfield in the North Sea because of a pay dispute. It involves men employed by CJB Offshore and contractors on payments for time not worked during strike action when the central platform hook-up work was in progress.

£13m turbine order

General Electric Co. of America has been awarded a £25m (about £13m) contract for five gas turbines for Mobil Exploration operators for the Statoff/Mobil group. The turbines will be installed on the Statoff B platform.

Redundancy talks fail

Union-management talks on plans for the redundancy of 100 "Alfred" Herbert machine tool workers in Coventry reached deadlock yesterday. The alleged "suspension" of the group says the redundancies are essential if the company is to survive.

LETTERS TO THE EDITOR

Product liability 'false alarms'

From Mr Alastair MacGeorge
Sir, The Chief Executive of the British Electrical and Allied Manufacturers' Association (BEAMA) is surely sounding false alarms about the likely consequences of legislation on product liability. (Business News Letters, September 4.) How can he substantiate his claim that there will be a "large number of frivolous and unreasonable claims" from those who consider themselves injured as a result of defective products?

As the law stands now the seller is strictly liable for defects in the goods he sells, and can be made to compensate the buyer for injuries suffered as a result.

Negligence does not have to be proved. This liability can usually be passed up the line of distribution, so the manufacturer will often in practice bear the cost of compensation. The problem is, the law of contract gives the right of redress only to the person who happens to buy the defective product. A law on product liability would extend the right to anyone injured by it. Take the tragedy of the Birmingham pensioners who contracted botulism from a can of salmon: should the right to compensation be affected by which of them happened to buy the can? We think not.

BEAMA feels that manufacturers should be able to rely on the "state of the art" defence. But retailers cannot, under law of contract. Yet there is little evidence that retailing interests are staggering under weight of this burden. So cannot see why removing anomaly whereby consumer rights vary, depending on whether he has bought the goods who bring down a fresh avalanche of claims, frivolous or not, manufacturers' reluctance to

Yours faithfully,
ALASTAIR MACGEORGE,
Assistant Director,
Consumers' Association,
14 Buckingham Street,
London WC2N 6DS.

Function of a trade union

From Mr Andrew Beckman
Sir, In your front-page article on the striking roofmakers (August 25), you quite rightly pointed out that if the Amalgamated Union of Engineering Workers did expel them, they would not only lose their present jobs, but also find it hard to obtain new employment.

I was always under the impression that one function of a trade union was to protect the right of the workers to go on strike, however let us read on before we moralise.

In the next paragraph you point out that they had "flouted union authority".

I then remembered that we were dealing with a nationalised industry whose future will be decided by a board containing worker directors selected by the union and that the action of

the toolmakers was unofficial; ie, against the union's wishes. Since any strike action would be averted by trade union representation on the board of an industry, except of course unofficial strike action, it strikes me as logical that withdrawal of labour will become a thing of the past and the working man will once again be led like sheep whilst the union leaders, like the pigs in George Orwell's *Animal Farm*, join up with their masters.

Is that the promise of scourge of Soviet inhumanity and totalitarianism, Mr Terence Duffy, prepared to make a stand against the inhumanity and totalitarianism in his own union?

Yours sincerely,
ANDREW BECKMAN,
32 Farm Avenue,
London, NW2 2BH.

Directory of postal codes

From Mr R. O. Leaver
Sir, The Post Office says any increase in size of the phone directory in order to show the post codes must at the expense of the telephone subscribers, for the benefit of the population as a whole. The characters of the code get mixed up with the phone number where exchange is shown, as London, Manchester, etc. The answer is that a postal district in fact has complete list of codes in form in alphabetical order, divided into smaller towns and villages. The head postman of two nearby districts is that me their books after simple request.

In The Netherlands an address in the country is recently received a volume containing eye address with its code. In long term this would seem to be the ideal and the Office here on the one hand and the population on the other can choose how far they can go towards this ideal.

Yours faithfully,
R. O. LEAVER,
76 Heaton Park Drive,
Bradford,
Yorkshire,
BD9 5QE.

VAT zero-rating of supplies

From Mr Michael Frampton
Sir, I enjoyed the way in which the deputy chairman of HM Customs and Excise successfully parried a criticism (September 4).

In the past the Board has invited suggestions. I have never had a reply to the suggestion that supplies could be zero rated when made to registered persons—as in the days of purchase tax. The time-consuming operation of calculating input tax would thus be eliminated.

I realize that there would be complications which would arise but I would have expected that the reduction in business and Customs and Excise staffs

would be an overwhelming compensation. I hope you will allow me the courtesy of your columns to elicit a reply.


Yours faithfully,
MICHAEL FRAMPTON,
Mill Cottage,
Ashford-in-the-Water,
Near Bakewell,
Derbyshire DE4 1PZ.
September 5.

Spending by trustees on works of art

From Mr W. P. C. Davis
Sir, It has long been an established principle of our law that the expenditure of capital by trustees on works of art and other forms of property incapable of producing income is not an "investment". Trustees who spend capital on works of art could be held to be in breach of trust unless their trust deed confers upon them express power to expend capital on such forms of property. If the trustees have acted in breach of trust and lost results, any beneficiary can claim against the trustees requiring them to make good the loss out of their own pockets.

The rule applies to trustees of pension funds as well as to trustees of private trusts and one wonders whether it is not sometimes overlooked.

Yours faithfully,
PATRICK DAVIS,
1 Bedford Row,
London, WC1R 4BZ.
August 29.



BEARER DEPOSITARY RECEIPTS

Following the DIVIDEND DECLARATION by the Company on 13 July 1978 NOTICE is now given that the following DISTRIBUTION will be payable to Authorised Depositories on or after 11 September 1978 against presentation to the Depository (as below) of Claim Forms (obtainable from the Depository) listing Bearer Depositary Receipts.

Gross Distribution per Unit	4.500 cents
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The Board of Directors of Imperial Chemical Industries Limited announce the unaudited figures of the trading results of the Group for the first half of 1978 with comparative figures for 1977.

1977		1978	
First Half	Year	First Half	Year
£ millions	£ millions	£ millions	£ millions
2,414	4,663	2,216	4,663
309	483	251	483
Sales to external customers			
After providing for:			
109	221	107	221
8	29	4	29
133	202	85	202
176	281	166	281
14	26	8	26
162	255	158	255
1	29	5	29
163	226	153	226

The following table summarises the quarterly sales and profits before taxation:

1977	Group sales £m	Group profit before tax		Total £m
		Excluding exchange gain/loss	Exchange gain/loss	
1st Quarter	1,190	148	-7	141
2nd Quarter	1,224	169	-1	168
3rd Quarter	1,136	107	-2	105
4th Quarter	1,113	88	-19	69
Year	4,663	512	-29	483

*IML included to 31 October 1977 only.

On a current cost accounting basis, the total of additional depreciation, cost of sales adjustment and erosion of the value of trade debtors less creditors would have reduced Group income before tax for the first half of 1978 by £137m, compared with reductions of £130m for the first half of 1977 and £251m for the full year.

The charge for taxation, less grants, for the first half of 1978 consisted of £65m. UK corporation tax, less a credit of £11m, for UK Government grants, £27m, overseas tax and £4m, on the profits of principal associated companies. If the proposals on deferred taxation contained in Exposure Draft 19 had been adopted for the first half of 1978, it is estimated that the taxation charge would have been £24m, lower compared with about £60m, lower for the full year 1977.

Interim dividend for 1978
The Board has declared an interim dividend of 10.0 pence (ten pence) on each ordinary share of £1 unit of Ordinary stock of the Company in respect of the year 1978 (1977 9.0 pence). This together with the imputed tax credit of 4.92537 pence is equivalent to a gross dividend of 14.92537 pence (1977 13.63636 pence).

The interim dividend now declared will be a scrib £27m, and is payable on 10 November 1978 to Ordinary stockholders registered in the books of the Company on 29 September 1978.

First nine months results of 1978
The trading results for the first nine months of 1978 will be announced on 23 November 1978.

Cadbury Schweppes LIMITED

INTERIM STATEMENT

Results for the 24 weeks ended 17 June 1978

	Half Year 1978	Half Year 1977	Year 1977
	£m	£m	£m
Group sales	446.2	400.8	883.6
Group profit before tax	18.5	18.7	48.2
Taxation	5.8	6.2	15.2
Group profit after tax	12.7	12.5	33.0
Dividends	3.5	3.5	11.3

Results for the half year 1977 have been restated to reflect the revised policy for the treatment of deferred tax.

Points from the Statement by Sir Adrian Cadbury, Chairman

- * Sales for half year increased by 11.3% against same period in 1977.
- * Profits in line with expectations but major share is earned in second half.
- * United Kingdom sales show satisfactory increases except in Tea and Foods.
- * North American sales in dollars substantially up.
- * Peter Paul Inc. shows £0.3m. profit since April acquisition after charging interest on investment.
- * Board expects year to show improvement on 1977 if latest sales trends continue.
- * Interim Dividend of 0.95p, in line with last year, declared on ordinary stock.

Copies of the full Statement will be sent to all stockholders and further copies are available from the Secretary Cadbury Schweppes Limited, 1-10 Connaught Place, London W2 2EX

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BY THE FINANCIAL EDITOR

Testing the stock market's nerve

alarming

the election is not going to be in October, then is it going to be? That was the first question that markets will have to try to answer this morning. Moreover, until it comes clearer whether the Government will survive a vote on the Queen's Speech in November, the options remain wide-ranging. Other words, markets are left in a state of uncertainty.

Should it seem as the weeks unfold that the Government can in fact survive through the rest of this year, there must be a reasonable chance that markets will pay rather than attention to economic fundamentals and become less inhibited. By nature, they are too fidgety to remain still indefinitely.

Just how those fundamentals will be looked at later in the autumn remains to be seen. It is the key for markets is clearly going to be how the next round of pay negotiations will develop. Brightness and the likely future for interest rates. To an extent, the market will clearly depend on the former and, of course, on the trend in United States interest rates, but there must be some possibility that domestic rates will be moving upwards towards the turn of the year.

On the other hand, it starts to seem likely that the Government will be forced to go to the country before the end of the year, an election speculation is going to remain an important influence on market thinking. In that case, an important question for the market is the authorities' ability to push through a smaller funding programme on any great scale. The market is looking up beyond the end of the September banking month.

British Petroleum

Guaranteed

Optimism

like Shell three weeks ago BP is taking a guardedly optimistic view of prospects for the remainder of this year. Underlying demand is improving and after the significant restocking which took place last year there are now signs that stocks are being created in front of any pricing action which BP may take later this year.

Certainly in Europe, which has been the main problem area for the oil companies during the past couple of years, BP says that adding conditions generally have improved during the past six months, and that this trend continues into the third quarter. Even here, while still poor, are turning in better figures than those seen at the bottom of the recession in the second half of last year. Not that it is easy to detect any upturn from BP's second quarter figures which are complicated by the first time consolidation of Sohio, which prior to BP assuming a 50 per cent interest as it did this summer had been equity accounted.

With Sohio and its expanding profits from Alaskan crude production in on the new basis, BP net income runs out at £121m in the April/June period on sales of £3,600m. The impact of taking in Sohio on a consolidated basis can be seen by the fact that its contribution to net income has moved up from £8.5m on a re-stated 1977 first quarter to £46.2m this time.

That appears to leave BP income ex-Sohio ageing badly so far this year, but in fact it is slightly up if substantial stock profits taken into the first half of last year of around £60m are stripped out. It will be a little time of course before the market adjusts to the consolidation of Sohio, but with the trading cycle apparently turning up at last, production from the North Sea oil fields at a maximum average of 400,000 barrels a day and likely to remain here in the foreseeable future, Alaskan oil coming on stream and the possibility of crude price increase should continue the improving trend which may help the market generate some fresh enthusiasm for major stocks.

Looking for trends

prospects for the world chemical industry remain bazy and still the most sanguine conclusion to be drawn from the recent results of the chemical majors is that the extended recession has come to an end and that an actual upturn has begun. Figures from the European groups have been at best mixed suggesting that overcapacity here is worse than in the rest of

pes

It has taken just over three years for Alan Froot to attain the managing directorship of the Prudential Assurance Co. Ltd. but there must be few candidates around with a pedigree suited to this particular institution.

Froot succeeds the able Sidney Burne, who was named in June as the new chairman after a period of helping John Cuckney sort out a financial mess about which more will be known when the pending tribunal of inquiry starts its hearings on Monday week.

Froot came into the then crisis-ridden Crown Agents headquarters in January 1975, as general manager of banking services, moving up to the directorship of finance by November, 1976. Since last December, he has been holding down the sensitive post of controller of overseas governments and administrations (the principal clients).

The choice of the new managing director is an intriguing one, given Froot's background. He started working in the Bank of England's overseas department, moved into the colonial service in 1952, working in Africa. After a spell in hospital administration, he resumed banking with the Bankers Trust Company through the sixties, progressing to a directorship of Bankers Trust

Business Diary: Lifemanship at the Pru

It's all change at the mighty Prudential where a top management reshuffle for the new year has just been announced. Geoff Haslam, the group's chief financial manager, moves up to the newly created post of chief executive of the Prudential group of companies while, in a series of consequential changes, general manager Desmond Craig steps into his shoes.

Prudential watchers might be surprised that Brian Corby, the group's other general manager, has been widely tipped for the job, but he has not followed Haslam's footsteps. In fact, it is a situation where appearances are deceptive. Brian Corby may have stayed at this time round as general manager, but his responsibilities

20 years on - the British Aluminium saga ends

The bid from Tube Investments and its United States partner Reynolds Metals for British Aluminium - which began in November 1958 and went on amid unprecedented acrimony into the following year probably began the modern era of takeovers and institutional influence. Now 20 years later Reynolds is placing the BA stake it fought so hard for.

In 1958 British Aluminium did not want to be seized by any one, but it did want assured supplies of raw aluminium to fill its processing capacity, and the time to make a deal was not far off.

On November 5, the chairman of British Aluminium, Marshal of the RAF Lord Portal, got a fateful letter. In it Sir Ivan Stedeford, chairman of Tube Investments, said that in conjunction with its American partner Reynolds Metals, it wanted to make an attractive offer for British Aluminium.

Lord Portal and his colleagues had other ideas. Put on his guard by Sir Ivan, he moved quickly to conclude a deal with Alcoa, known as Alcos.

It did not take Sir Ivan long to point out that British Aluminium was turning down an approach from a group of engineering group, selling shares to an American concern without disclosing the price, and rejecting the principle of going to BA shareholders first to see if they wanted to put up the money.

The crux of this attack, maintained by a brilliant German financier, Sir Edmund Warburg, on the merits of the deal was that British Aluminium was ignoring the interests of its shareholders.

In its turn Tube Investments and its United States partner made a shares and cash offer worth what was then the start.

Peter Wainwright

ling sum of £35m for BA through a 'management buy-out' by Tube Investments.

Ostensibly, Tubes kept control and the Americans put up the cash. The Treasury which had the power to block one or both bids quickly temporized.

At the time, it was said that it was intended to see which deal shareholders preferred before moving. In this way it stopped British Aluminium from getting a fair price.

One question raised itself again and again. Why did British Aluminium prefer a deal (without a bid) from Alcoa, and rebuff Tubes without putting the matter to its 17,000 shareholders? Once the two deals were announced, BA's shares jumped from 55p to 72p (360p) but not to 78p, the value of the Tubes bid.

Institutions went to a great meeting addressed by Lord Portal who failed to win them over and others met to protest.

The deal was a curious offer designed solely to block Tubes, the United States upstart Reynolds, and Warburg.

The grouping offered every BA shareholder the chance of selling to it, half his holding at 82p, the other half at 72p. The rest, this strategem, announced on behalf of the 14, and led by Lord Kindersley of Lizard, and Mr. Olaf Hambro of Hambro's had a key weakness.

Much clearly depended on the share price of BA itself, in came Reynolds buying all the shares it could lay its hands on and going above the 80s or so of the Tubes bid to do so.

By January 8 it was all over. Private shareholders had sold to the public and institutions such as the Church Commissioners had sold out to Reynolds too. The Treasury gave its formal blessing.

Other companies were frightened by BA's misfortune in ignoring its shareholders. Both EMI and Veneta hastened to give assurances that they would not issue authorized capital that would alter the control of the company without shareholders agreeing. In many ways it was the start of a new era.

British Aluminium TT's baby

The question that must be asked about Reynolds Metals' decision to sell its British Aluminium stake is why, if the world's number three producer does not want to maintain its investment in the British aluminium industry, Tube Investments should think it worth not only staying in, but increasing its stake in BA from 50 to 58 per cent at a cost of £7.75m. It is true, of course, that TI will now be able to consolidate BA fully. Reynolds, for its part, was only drawing dividend income, and it believes that packaging and other developments in the United States make that market a more attractive home for its money than a portfolio holding in BA.

By the same token, however, it has only been in the past year or so that Reynolds could decently contemplate disengaging from BA. Last year it made £24m and this year it is forecasting about the same again, but hitherto BA's record has been, at best, erratic. Only three times in the past 12 years has its profits topped the £4.8m achieved in 1966, and as recently as 1975 it made a mere £1.7m.

BA insists that Reynolds is not simply taking the chance to get out at the top of the cycle. It says the outlook for 1979 is good and that projected annual growth in demand of 5-6 per cent for the next five years comfortably exceeds the 3 per cent forecast rise in capacity. The industry worldwide, meanwhile, is operating at nearly 90 per cent of capacity.

But the industry's volatile record demonstrates how vulnerable it can be to short term fluctuations in demand. Much, of course, depends on pricing. This sort of doubt seems to be implicit in the 77.5p price at which Reynolds' shares were placed. The yield is 5.6 per cent and the historic price ratio is 12.5 times earnings.

Admittedly, BA has done much to improve productivity and the Invergordon smelter is increasingly profitable, but assuming the shares trade at something over 800p, the rating will only be broadly in line with that of Alcan, and BA will have a lot to do to convince the market that it is anything other than a highly cyclical stock.

Monsters bringing power from space



Space construction techniques for possible solar power satellites and other spacecraft will be tested on board a space shuttle using this beam builder, constructed for the United States National Aeronautics and Space Administration by Grumman. The machine automatically produces lengths of the frame girder shown.

What is 15 miles long, three miles wide, travels at 6,800 mph, yet appears to be motionless and generates ten thousand megawatts of electricity?

Today, nothing; but, the year 2000 perhaps, a solar power satellite. Long the subject of technical papers by enthusiasts, this concept is now getting cautiously under way in the United States with an official authorization of \$5m (about £1.3m) to begin preliminary studies and frame a national programme.

Boeing Aerospace and Grumman Corporation are mounting a coordinated research effort to explore the possibilities and problems of solar power satellites. At the Society of British Aerospace Companies show at Farnborough this week, company executives outlined their present thinking.

They start by giving credit for much of the pioneering analysis of the concept to Dr Peter Glasner of the Arthur D. Little consultancy, who for many years has written and presented conference papers on this subject.

In essence, the idea is that a huge, earth-orbiting satellite would receive virtually uninterrupted radiation from the sun, convert it to electricity and then to microwave radiation, and subsequently beam this power down to earth, where it would be received into a large, parabolic dish of about 22,300 miles above the equator. The satellite's motion would match the rotation of the earth and thus it would appear to be stationary as do the international communication satellites, for instance, when viewed from the earth.

Research and development is also under way in the United States and elsewhere on tapping the sun's power for electricity by receiving and converting it at sites on the ground.

The satellite plan is unprecedented in scale and mind-boggling in its implications. Each satellite would cover the area of a battleship, and would need to be assembled in space. Launch schedules involved in construction would most likely resemble airline timetables.

"But the solar satellite programme is a small fish, which as Mr. Harold Goldie, executive vice-president of Boeing Aerospace, insists, the real problems will be political and economic.

"There is no single element we don't see how to do, though the price might not be right at present."

Proponents of space solar power realize that the electricity utilities, as customers for the power, will have to be closely involved in the overall plan.

Methods of automated construction are already being tested. At Grumman Aerospace Corporation at Bethpage, Long Island, a full-scale "beam builder" has been demonstrated. This machine converts lengths of aluminium alloy sheet into structural beams.

The edges of the alloy strips are folded over by rollers to give stiffness, and the strips are pushed out of the machine to form three basic longitudinal elements which are braced into a triangular-section open beam by cross-braces that are automatically welded in place.

The beam extends continuously from the machine and is cut to length.

Measuring 14ft by 8ft, the present beam builder weighs 22,000lb and can produce a 1,000ft long beam from a single supply of three reels of aluminium. Reloading the machine to permit the construction of beams of unlimited length, because of the effective absence of gravity in space, the alloy can be very thin and the beams very fragile by earth standards.

This first beam builder is now being tested at the Marshall Space Flight Centre in Huntsville, Alabama. Afterwards it will be modified to cut 6,000lb from its weight before orbital tests on board a space shuttle vehicle. A version using composite materials is also being designed.

Two methods of producing electrical power on board the satellite are being considered. The simpler one is to have a flat panel, 13 or 15 miles long and about three miles wide, consisting of thousands of millions of silicon solar cells similar to those used to provide electrical power for today's satellites. These photovoltaic cells convert solar radiation directly into electricity.

For this approach to be attractive the cost of the solar cells will need to come down from the present level of about \$10 per watt to one tenth of that figure.

The second method is based on the principle of the Brayton heat engine. Four large parabolic dishes would each reflect and concentrate the Sun's rays onto a solar furnace; gases in the furnace would expand to drive a series of turbo-generators to produce electricity.

The overall size of the satellite would be about the same as for the photovoltaic design.

An approach to space power systems could involve initial test satellites generating perhaps 50 megawatts and 100 megawatts as steps on the development path to the larger systems.

According to Mr. Goldie, operational electricity - in limited amounts, but on an economic basis - could be coming out of the sky in about 20 years' time.

Kenneth Owen
Technology Correspondent

Mr Fukuda's Middle Eastern mission

Japanese bureaucrats hope that Mr Fukuda will erase the image of "oil begging diplomacy" created by fleet-footed politicians who made panic visits to the Middle East during the 1973 oil crisis to keep the oil coming.

Arabs remember bitterly that Japanese politicians made many promises to supply them with economic cooperation but after the emergency Tokyo began dragging its feet on specific emergency promised projects.

In the meantime, the value of Japan's exports to the Middle East has grown enormously. After the United States, Saudi Arabia was Japan's biggest single export market last year.

Now after several years of backsliding on its 1973 promises, Japanese economic cooperation projects have made great progress, especially in the Gulf States.

Mr Fukuda brings with him offers of technological expertise and economic energy know-how. Iran is particularly interested in Japanese atomic power technology. Teheran plans to supply at least half of its energy needs from atomic energy plants by the mid 1990s.

In exchange, Mr Fukuda wants assurances of oil supplies from Iran and a promise that oil prices will not be raised.

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David Tharp

Rotork Limited

Interim Announcement

Unaudited results for the six months ended 30th June 1978

	1978	1977
Turnover	£m 8.94	£m 7.02
Profit before taxation	1.45	1.40
Profit after taxation	0.70	0.68
Earnings per share	7.5p	7.4p
Earnings per share after capitalisation issue	3.8p	3.7p

In a difficult and highly competitive international trading climate the Group's first half profit, showing a modest increase over the same period last year, was only achieved through a determined effort to increase turnover substantially.

Credible results have again been achieved by the Controls and other Engineering Divisions and these are expected to continue throughout the year, although margins will remain under pressure. With a large part of our business in North America, sharp movements in the dollar can have an appreciable effect on the figures.

The Marine Division has had an unsatisfactory start to the year and has fallen well below expectations. However, corrective action has now been taken and the Division's results will begin to show an improving trend in the second half.

Dividend
The Directors recommend an Interim Dividend of 0.65p per share (1977 equivalent 0.585p) to be paid on 3 November 1978 to shareholders on the register at the close of business on 29 September 1978. The final Dividend will absorb £108,755 after a waiver of £14,950 (1977 £21,682 after a waiver of £14,777).

rotork

Ross Davies

FINANCIAL NEWS AND MARKET REPORTS

£3.8m rights

Statement clears way for advance

the election uncertainty of the way at temporarily—the market set fair for a strong run over the next few weeks.

dealers now feel that ordinary share index has rallied some 15 over the past three days, move out of the 480-520 band and on up to its peak.

investors, traders in the Prime Minister's house, but the index climbed a 5.2 climb, 2.7, its best level of the

Tilling firming slightly yesterday at the start of some see as the run-up in interim figures next week.

Following the bid for Fluoride, the bid has been a bit delayed, but analysts expect a near 30 per cent profit improvement to around £2m could inject some new into the equity.

only one occasion over the couple of weeks have firms managed to move the 5,000 level and some that this low turnover continue until the summer finally goes in the

redged securities had a very quiet session with a easing an early fall of light to end with a gain

sixteenth, where changed. The longer and stocks had an eighth easier on the

ong the leader stocks, ICI moved to be the bell weather of this market higher on the

of profits much in line with the market. The market ended 6p better at 406p

elsewhere. Fisons firmed 383p, Beecham added 5p 715p, Unilever went 6p

er to 57p and Courtalds a penny to 17p. The LTA at 20p, GEC at 17p, held steady but GKN,

down 5p to 268p, continued to 268p at the back of analysts, downgrading profit forecasts on

next week's results. John Brown also slipped back, losing 2p to 466p.

In all BP ended unchanged at 894p after trading down to 894p at one stage. Although

profits were below expectations, the shares were underpinned by a confident statement for the

second half. Shell at 576p and Tricor, reporting next week, at 175p firmed a couple of pence.

Several groups asked shareholders for cash yesterday. British Printing Corporation ended unchanged at 53p after

a £3.8m rights issue while Hill & Smith were similarly unchanged at 87p following a

£1.57m fund-raising exercise. A dividend boosting cash call from Rattners added 5p to the

shares at 77p but 20 per cent stake holder H. Samuel were unchanged at 193p.

Northern Mining firmed another 4p to 160p on further consideration of the diamond

statement by CRA, 9p lower at 326p on profit-taking.

Elsewhere company trading news dominated the action. Cadbury Schweppes, in line

with estimates, went a penny higher to 58p while BET firmed 5p to 115p and Richard Costain

climbed 8p to 250p after heating market hopes.

Sharply higher profits and a scrip from S. Gaskett added 5p to the shares at 88p while M. Mole firmed 2p to 31p, Wilson

(Connolly) rose 6p to 145p and Margan Crucible was lifted 3p to 130p.

By contrast Gibbons Dudley shed 4p to 77p.

Textiles group, Brigat, trading at 81p, has been offering a little speculative interest of late on hopes that the group

will return to the dividend list later this year. There has been no payout to shareholders since 1974.

Equity turnover on September 6 was £57.82m (15,488 bargains). Active stocks yesterday, according to Exchange

Telegraph, were ICI, BP, Beecham, Cadbury Schweppes, GEC, Reckitt & Coleman, Shell, RIZ, Distillers, R. Costain, Common Wealth, P & O, GKN

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Hill & Smith raising a total of £1.57m

By Rosemary Usworth
Hill & Smith, the Midlands steel stockholding and metal fabricating group, is raising £1.57m through a one-for-seven rights issue at 75p and the issue of £1m 14 per cent debenture stock.

The issues will be used for further acquisitions and additional working capital within the next few months. The ordinary share rights issue gives shareholders a 12p discount on the overnight price, with a prospective yield of 5.2 per cent at the ex-rights price of 85.5p.

Shareholders will also be entitled to pay 75p per cent increase on the 1978-79 total dividend compared with last year's on the basis of the two issues.

The board intends to propose a 50 per cent increase on the total dividend for the year to September 30, 1979, making 4.47p gross, compared with 3.1p last year. An interim of 1.1p has already been paid. It also hopes to obtain Treasury permission to pay 75p per cent increase on the 1978-79 total dividend compared with last year's on the basis of the two issues.

Cadbury still waits on consumer boom

By Richard Allen
Cadbury Schweppes is still awaiting real signs that the consumer spending boom, so far restricted to durable goods, has started to spill over into food and confectionery.

To the meantime trading is dull. Profits in the first half of the year dipped £200,000 to £18.5m, despite a sales increase of 11 per cent to £445m.

However, the group had given a warning of a possible first-half setback and the shares added 1p yesterday to 53p on chairman, Sir Adrian Cadbury's forecast of an improved result for the full year.

In the United Kingdom trading profits dropped from £13.4m to £11.3m. Here the group reports a satisfactory improvement in all areas except food, where margins have been squeezed by the supermarket price war, and tea.

Cadbury has not attempted to estimate the effect of the intervention by Mr Roy Hattersley, Secretary for Prices, into the tea trade earlier this year. However, trade sources believe the cost to the group of the consequent disruption in the market could have been as much as £2m.

North American trading maintained at 1.42p.

Back to profits at Goode Durrant

By Tony May
Goode Durrant & Murray is back in profit, and is hoping to solve the difficulties of its 61.2 per cent controlled building and property offshoot, Rawlings Bros, by hiding 10p a share for the year.

The firm has agreed to confirm and shipping house Goode Durrant has turned a loss of £508,000 into a pre-tax profit of £286,000 for the six months to April 30, on turnover down from £33.3m to £29.8m.

Mr Lionel Robinson, the chairman, says that the reshaping of the United Kingdom business is beginning to bear fruit. This, together with the improved performance of Rawlings, where losses for the half year were cut from £531,000 to £35,000, plus an improvement overseas, are behind the group's profits.

For some time Rawlings has only been able to continue trading with support from Goode Durrant whose loans to Rawlings are beginning to run out. Rawlings had a net deficiency of ordinary shareholders' funds of about £1.6m at October 31.

Occidental Overseas Capital Corporation

84% Guaranteed Sinking Fund Debentures due October 1, 1979

NOTICE IS HEREBY GIVEN that, pursuant to the provisions of the Fiscal Agency Agreement dated as of October 1, 1969 between Occidental Overseas Capital Corporation, Occidental Petroleum Corporation, Guarantor, and The Chase Manhattan Bank (National Association), Fiscal Agent, \$2,000,000 in aggregate principal amount of the above-captioned Debentures will be redeemed for the sinking fund on October 1, 1978 at the redemption price of 100% of the principal amount thereof, together with accrued interest to October 1, 1978.

The following Debentures are to be redeemed as follows:

1454	2998	4248	5196	5192	6887	8091	9021	9111	10705	11544	12236	13442	14428	15079	15720	16477	17280	18130	19020	19954	20934	21962	23040	24168	25346	26574	27852	29180	30558
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30558	31986	33414	34842	36270	37698	39126	40554	41982	43410	44838	46266	47694	49122	50550	51978	53406	54834	56262	57690	59118	60546	61974	63402	64830	66258	67686	69114	70542	71970
31986	33414	34842	36270	37698	39126	40554	41982	43410	44838	46266	47694	49122	50550	51978	53406	54834	56262	57690	59118	60546	61974	63402	64830	66258	67686	69114	70542	71970	73398
33414	34842	36270	37698	39126	40554	41982	43410	44838	46266	47694	49122	50550	51978	53406	54834	56262	57690	59118	60546	61974	63402	64830	66258	67686	69114	70542	71970	73398	74826
34842	36270	37698	39126	40554	41982	43410	44838	46266	47694	49122	50550	51978	53406	54834	56262	57690	59118	60546	61974	63402	64830	66258	67686	69114	70542	71970	73398	74826	76254
36270	37698	39126	40554	41982	43410	44838	46266	47694	49122	50550	51978	53406	54834	56262	57690	59118	60546	61974	63402	64830	66258	67686	69114	70542	71970	73398	74826	76254	77682
37698	39126	40554	41982	43410	44838	46266	47694	49122	50550	51978	53406	54834	56262	57690	59118	60546	61974	63402	64830	66258	67686	69114	70542	71970	73398	74826	76254	77682	79110
39126	40554	41982	43410	44838	46266	47694	49122	50550	51978	53406	54834	56262	57690	59118	60546	61974	63402	64830	66258	67686	69114	70542	71970	73398	74826	76254	77682	79110	80538
40554	41982	43410	44838	46266	47694	49122	50550	51978	53406	54834	56262	57690	59118	60546	61974	63402	64830	66258	67686	69114	70542	71970	73398	74826	76254	77682	79110	80538	81966
41982	43410	44838	46266	47694	49122	50550	51978	53406	54834	56262	57690	59118	60546	61974	63402	64830	66258	67686	69114	70542	71970	73398	74826	76254	77682	79110	80538	81966	83394
43410	44838	46266	47694	49122	50550	51978	53406	54834	56262	57690	59118	60546	61974	63402	64830	66258	67686	69114	70542	71970	73398	74826	76254	77682	79110	80538	81966	83394	84822
44838	46266	47694	49122	50550	51978	53406	54834	56262	57690	59118	60546	61974	63402	64830	66258	67686	69114	70542	71970	73398	74826	76254	77682	79110	80538	81966	83394	84822	86250
46266	47694	49122	50550	51978	53406	54834	56262	57690	59118	60546	61974	63402	64830	66258	67686	69114	70542	71970	73398	74826	76254	77682	79110	80538	81966	83394	84822	86250	87678
47694	49122	50550	51978	53406	54834	56262	57690	59118	60546	61974	63402	64830	66258	67686	69114	70542	71970	73398	74826	76254	77682	79110	80538	81966	83394				

Stock Exchange Prices

Equities buoyant

ACCOUNT DAYS: Dealings Began, Sept 4. Dealings End, Sept 15. § Contango Day, Sept 18. Settlement Day, Sept 26

§ Forward bargains are permitted on two previous days

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